

**Judgement and Adjective Complementation Patterns
in Biographical Discourse: A Corpus Study**

by

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A thesis submitted to

The University of Birmingham

for the degree of

DOCTOR OF PHILOSOPHY

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and Applied Linguistics

School of English, Drama,
American & Canadian Studies

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The University of Birmingham

July 2015

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ABSTRACT

This thesis, drawing on insights from Appraisal Theory, Pattern Grammar and Corpus Linguistics, explores the association between grammar patterns and attitudinal meanings. Particular attention is paid to adjective complementation patterns and Judgement, i.e. the ethical evaluation of human behaviour and character. Using a corpus compiled of biographical discourse, this study addresses four research questions: 1) whether the current JUDGEMENT system is sufficiently comprehensive and systematic to deal with the Judgement resources identified in this corpus, 2) what insights a detailed scrutiny of adjective-in-pattern exemplars can offer into the description and characterisation of attitudinal resources, 3) how local grammars of evaluation can be developed with the help of grammar patterns, and 4) what local grammars of evaluation may be useful for. It is suggested that the original JUDGEMENT system should be refined so as to enable it to deal effectively with the Judgement resources found. Drawing on evidence from both personality psychology and corpus analysis, Emotivity is proposed as a new sub-type of Judgement to account for those resources which construe attitudes towards emotional types of personality traits. The examination of adjective-in-pattern exemplars in terms of Attitude shows that grammar patterns are of limited use in distinguishing types of attitudinal meanings but that grammar patterns are a very useful heuristic to investigate attitudinal resources. Further, it is demonstrated that grammar patterns are a good starting point for the construction of local grammars of evaluation, which is exemplified by the local grammar of Judgement developed in the current study. Lastly, it is argued that local grammars of evaluation, in theory, provide an alternative way to model attitudinal meanings, and in practice, offer some insights into the automation of appraisal analysis. Other related issues (e.g. local grammar analyses of some special cases, replicability of the methodology) are also discussed.

ACKNOWLEDGEMENTS

My thanks goes to The University of Birmingham and The China Scholarship Council for jointly providing The Li Siguang Scholarship which financially enables me to pursue my PhD study.

My utmost gratitude and respect goes to my supervisor Prof. Susan Hunston for her encouragement, expertise and enlightenment. Susan encouraged me when I was applying her PhD programme, then supervised me with her expertise and enthusiasm; and the supervision meetings always enlightened me to develop further and better my thoughts. She is, academically, professionally and personally, a mentor to me forever.

I would like to thank Prof. Geoff Thompson (University of Liverpool), Dr. Monika Bednarek (University of Sydney), Dr. Caroline Tagg (University of Birmingham) and Dr. Charlotte Hommerberg (Linnaeus University, whom I have not yet had the chance to meet with in person): all of them have kindly sent me the papers I requested, most of which were sent to me before they officially come out!

There are many others to whom I am also grateful: my MA supervisor Prof. Liu Chengyu (Southwest University) who prepared me well for the PhD study; Dr. Dong Min (Beihang University) for her comments on the thesis and for her help on the job application; the staff members at the Department of English Language and Applied Linguistics for their inspiring and entertaining lectures; my fellow PhD students at the Department, in particular Li Shuangling, Zou Yanli and Chau Meng-Hua, who helped me 'survive' at the very beginning; and my friends in China, Mr. Xiao Guohua, Ms. Li Ying, Ms. Xie Tingting, Ms. Zou Siyan, Mr. He Le, Ms. Zhao Sha'na, Ms. Xiao Yi, among many others, for being truly friends of mine.

The completion of the PhD study would not be possible without the support of my family. My aunts and uncles, and my beloved open-minded and far-sighted parents supported by all means my PhD journey throughout; my big brother, who has sacrificed a lot and has been taking good care of my parents during my absence, could have completed a remarkable PhD if I have not. To them all I dedicate this thesis.

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CHAPTER 1 INTRODUCTION

1.1 Corpus Approaches to Appraisal Research

This study, drawing on insights from Appraisal Theory, Pattern Grammar and Corpus Linguistics, explores the association between grammar patterns and attitudinal meanings. Particular attention is paid to adjective complementation patterns (Francis *et al* 1998: 412-480) and Judgement, i.e. the ethical evaluation of human behaviour and character (Martin 2000; Martin & White 2005: 52-56). The objectives of this thesis are: 1) to interrogate the subcategorisation of the original JUDGEMENT¹ system, 2) to explore the possibility of using adjective complementation patterns as a diagnostic to distinguish types of Attitude and also to explore what patterns as a heuristic can reveal about appraisal, and 3) to develop a local grammar of Judgement. The following sections offer an introduction to the present study, including the rationale, the foci, the research questions, the corpus and methodology, and the organisation of this thesis.

Many studies have argued that evaluative language is of great importance. For example, Thompson and Hunston (2000: 6) note that evaluative language fulfils (at least) three functions, i.e. to express one's opinion, to establish and maintain interpersonal relationships, and to organise the discourse; Painter (2003, 2006) shows that the acquisition of evaluative expressions is a significant aspect in language development from an ontogenetic perspective; Bednarek (2006: 4) suggests that evaluation plays a crucial role in construing our ideational experience, e.g. how we perceive the world, how we categorise things or phenomena we encounter; Hunston (2011: 3) further points out that evaluation assists the performance of speech acts (e.g. persuasion and argumentation) and that stance-taking is crucial in enacting social interactions. Much in line with those studies mentioned above, Alba-Juez and Thompson (2014: 5) argue that “[f]inding a text or even a sentence without any trace of evaluation is a very challenging, if not impossible, task”. This pervasiveness of evaluative expressions also indicates that it is important to further study evaluative language.

Given its importance, it is not surprising that there has been a long history of interest in evaluation or axiological research (see Felices-Lago 2014: 27-45). This is evident in the wide range of terms under which the phenomenon of evaluation has been

¹ This thesis follows the systemic functional convention of using all capitals to refer to system networks.

discussed; for example, ‘affect’ (e.g. Ochs 1989; Ochs & Schieffelin 1989; Besnier 1990), ‘prosody’ (e.g. Louw 1993; Partington 2004, 2015; Whitsitt 2005; Hunston 2007a; Morley & Partington 2009; Stewart 2010), ‘modality’ (e.g. Stubbs 1986, 1996; Halliday 1994), ‘hedging’ (e.g. Hyland 1998; Gross & Chesley 2012), ‘evaluation’ (e.g. Hunston & Thompson 2000; Bednarek 2006; Thompson & Alba-Juez 2014; Taboada & Trnavac 2014), ‘appraisal’ (e.g. Martin 2000, 2003; White 2002, 2004, 2011; Martin & White 2005; Hood 2010), ‘stance’ (e.g. Biber & Finegan 1988, 1989; Conrad & Biber 2000; Biber 2006: 87-131; Englebretson 2007; Du Bois & Kärkkäinen 2012), and ‘sentiment’ (e.g. Turney 2002; Fletcher & Patrick 2006; Pang & Lee 2008; Liu 2010). The present study uses ‘appraisal’ and ‘evaluation’ interchangeably to refer to this phenomenon. Furthermore, given the space constraints and, more importantly, the fact that comprehensive discussion and comparison between these approaches to evaluation have already been made in a number of studies (e.g. Thompson & Hunston 2000: 13-26; Macken-Horarik & Martin 2003; Martin & White 2005: 38-40; Bednarek 2006: 19-37; Englebretson 2007: 15-20; Hood 2010: 6-29; Hunston 2011: 19-24; Alba-Juez & Thompson 2014: 9-14; Moreno-Ortiz & Pérez-Hernández 2014: 89-96), I will thus not attempt to survey and summarise these approaches here.

What is worth adding is that the phenomenon of evaluation can also be described as being approached from different perspectives. For example, there have been studies addressing evaluation from a lexicogrammatical perspective. Research in this tradition includes but is not limited to the following: Labov (1972) suggests that grammatical resources such as intensifiers, comparators and correlatives may indicate different opinions; Stubbs (1986) similarly argues that logical connectors (e.g. *and*, *but*, *if*), tense and aspect, tag questions can be used to construe attitude; Biber and Finegan (1989) and Conrad and Biber (2000) further demonstrate that lexical resources such as adverbials and modal auxiliaries can be employed to express stance.

Studies have also approached evaluation from a discourse-semantic perspective. The most significant representative of this tradition is that of the APPRAISAL model (see, for example, Martin 2000; Martin & Rose 2003; Martin & White 2005; White 2002, 2004, 2011) which is “lexically-based but text-oriented” (Thompson 2014a: 48). Simply put, APPRAISAL comprises three semantic systems, i.e. ATTITUDE, GRADUATION and ENGAGEMENT, each of which has its own subdivisions (see Section 2.3 for more detail). This model has been widely recognised as the most systematic framework currently available for the study of evaluative language (e.g.

Bednarek 2006: 32; Thompson 2014a: 48; Moreno-Ortiz & Pérez-Hernández 2014: 93; Millar & Hunston in press), which explains why APPRAISAL is employed as the theoretical framework in the current study (see Section 3.3.2 for more discussion).

However, it needs to be pointed out that the two traditions discussed above are more or less based on careful reading of individual text(s), which in a way limits the amount of data for consideration and may consequently result in lower reliability of the observations and generalisations made in such studies (though such analysis does provide a more complete description of individual texts). This suggests that there is a need to try other approaches to investigating evaluative language in corpora so as to be able to consider more data and to achieve greater reliability of the findings; this has been taken up by those researchers who are interested in both corpus linguistics and appraisal research.

That is, evaluative language has been increasingly approached from a corpus-linguistic perspective (e.g. Hunston & Sinclair 2000; Coffin & O'Halloran 2006; Bednarek 2006, 2008a, 2009a, 2014; Römer 2008; Hunston 2003a, 2004a, 2007b, 2011; Taboada & Carretero 2012; Almutairi 2013; Zappavigna 2014; Millar & Hunston in press; Hommerberg & Don in press). In general, studies in this tradition have shown that corpus linguistic methods could be useful and effective in the investigation of evaluative language. For example, it has been observed that the evaluative meaning associated with one particular item might be flexible, and consequently, may not be accessible to intuitions; fortunately, corpus linguistic methods enable us to look at a large amount of authentic data, which allows the researcher to investigate in depth the evaluative force of particular items (Thompson & Hunston 2000: 18). The roles corpus investigation techniques can play in the study of evaluative language have been adequately discussed in Hunston (2011), which are quoted as follows:

- They allow a researcher to establish that a given word or phrase has a typical evaluative use or polarity.
- They permit quantification of evaluative meaning in one set of texts over another, by counting the occurrences of given forms.
- They permit mapping of meaning elements on to form elements where these coincide consistently.
- They allow a researcher to observe consistency in co-text in meaning as well as in form.

(Hunston 2011: 166-167)

In addition, since traditional grammatical descriptions do not specifically account for evaluation (Hunston & Thompson 2000: 74), it is important to explore the possibility of proposing alternative approaches to the grammar of evaluation. The corpus linguistic concept of local grammar is a helpful suggestion to accomplish this undertaking, which has to some extent been exemplified in previous studies (e.g. Hunston & Sinclair 2000; Hunston 2003a, 2011; Bednarek 2008a) and will be further exemplified in the present study. Moreover, the necessity of developing local grammars can be simply yet strongly justified by its application in automatic parsing and information extraction, as noted in Hunston and Sinclair (2000) and Barnbrook and Sinclair (2001).

At its simplest, local grammars deal with one meaning only and involve the uses of transparent functional labels to analyse syntactic elements (Hunston 2002a: 178; Hunston 2003a: 348; Butler 2004: 158; Bednarek 2008a: 66). The development of local grammars of evaluation requires the analysis of a large number of evaluative expressions so as to describe comprehensively evaluative language; this may indicate that only corpus investigation can afford us the possibility to complete this task, because, arguably, it is corpus investigation that provides us, and enables us to consider, more data. In this sense, it can be reasonably argued that a corpus approach to evaluation is necessary and useful.

At the same time, it has to be noted that the above discussion does not mean that corpus-based approaches to evaluative language are without limitations. Corpus linguistic investigation does have some drawbacks in studying evaluative language; for example, the restriction to form-based identification of evaluation makes it difficult to describe cases which do not have explicit evaluative lexis, i.e. invoked evaluation, let alone the description of non-linguistic attitudinal resources (see, for example, Joseph (2004), Feng & O'Halloran (2012) and Unsworth (2015) for the discussion of non-verbal means of evaluation).

Nevertheless, corpus linguistic methods do offer a way for the investigation of evaluative language in (large) corpora, which in turn provides more data for consideration and enables the researcher to describe systematically and coherently evaluative language (i.e. local grammars of evaluation), as has been shown in many studies (e.g. Bednarek 2008a, 2014; Hunston 2003a, 2011). The upshot of the above discussion, then, is that it is feasible and worthwhile to approach evaluative language from a corpus linguistic perspective (see also Hunston 2014). This is the approach that the present study adopts.

At this point, it is perhaps worth comparing briefly text-based and corpus-based inquiries of evaluative language. Some studies have argued that evaluation is cumulative and context-dependent, which suggests that text-based inquiries would be more suitable for evaluation research (cf. Hunston 2011: 4; Pounds 2011: 197). Meanwhile, many studies have shown that corpus linguistics also has an important role to play in addressing issues concerning evaluation, as discussed above. All of these arguments make sense. The point that needs to be made and emphasised is that text-based inquiries and corpus-based inquiries of evaluation are not competing but complementary approaches to evaluation research (cf. Martin & White 2005: 260). They each have a different focus and strength. That is, a text-based inquiry focuses on the depth of the analysis and therefore its strength lies in comprehensiveness and complexity; corpus analysis, on the contrary, focuses on the breadth or the volume of texts analysed and therefore its strength lies in generality (cf. Hood 2010: 29; Hunston 2014). However, if our aim is to achieve greater reliability of the findings, then we need to strike a balance between the level of analysis and the volume of texts analysed (Matthiessen 2014a: 187-195). It is in this respect that it can be argued that text-based and corpus-based inquiries are complementary in appraisal research, or more generally, in language and discourse studies.

1.2 JUDGEMENT and Adjective Complementation Patterns

As mentioned above, the APPRAISAL model, developed within the framework of Systemic Functional Linguistics (SFL; Halliday & Matthiessen 2004, 2014; Thompson 2014b), has been widely considered as the most fine-grained framework currently available to account for evaluation. This evaluation can be justified by its comprehensiveness, that is, Appraisal does not only focus on how attitude is expressed, but also deals with how attitude is intensified or downgraded and how different voices or opinions are positioned in discourse. These semantic domains have been respectively 'regionalised' as ATTITUDE, GRADUATION and ENGAGEMENT in the APPRAISAL model (Martin & White 2005: 35). Each of these semantic systems has its own subsystems; for example, ATTITUDE is subdivided into AFFECT (the construal of emotions), JUDGEMENT (the ethical evaluation of human behaviour and character) and APPRECIATION (the aesthetic evaluation of products and processes).

While the delicate taxonomy of attitudinal meanings contributes greatly to the comprehensiveness and usefulness of APPRAISAL, it is a very challenging task to take

the whole system into account in an individual research. Besides, it might also restrict the depth of the investigation if the whole system is involved. For the sake of manageability, this study thus focuses on ATTITUDE, paying special attention to one of its subsystems – JUDGEMENT (see Section 2.3.2.2 and Chapter 4 for more discussion). Further, another reason for focusing specifically on Judgement is that the assessment of human beings has been shown to play a crucial role in social interaction; for example, assessments of the qualities associated with Judgement may be used as evidence for retention and/or promotion in careers (e.g. Hyon 2011; cf. Martin & White 2005: 53; Millar & Hunston in press). Lastly, this restriction facilitates the development of local grammars of evaluation, which is one of the main objectives of the current study, i.e. to develop a local grammar of Judgement, as noted above.

Having made clear the focus of the present study, the next issue that needs to be discussed is how to approach or identify expressions associated with attitudinal meanings in naturally occurring texts. Studies have demonstrated that a phraseological approach could be useful. For example, Biber *et al* (2004) show that lexical bundles (e.g. *in fact, no doubt*) facilitate the investigation of stance (see also Biber 2006); Römer (2008) demonstrates that the n-gram analysis is useful to identify automatically evaluative expressions in corpora; Hunston (2011, 2014) further argues that phraseology offers new ways to approach evaluative language, e.g. to identify expressions performing evaluative acts, and to assist the consistent mapping of meaning elements on to form elements involved in evaluative expressions. Similarly, Bednarek, investigating evaluative language in promotional discourse (DVD blurbs), notes that “a phraseological approach to evaluation is necessary” (Bednarek 2014: 207-208).

It then becomes clear that phraseology is useful for the identification and analysis of evaluative language in corpora. However, there have been various approaches to phraseology; for instance, lexical bundles (Biber 1988, 1995, 2006; Biber *et al* 1999; Biber *et al* 2004), Construction Grammar (Goldberg 1995, 2006), Pattern Grammar (Hunston & Francis 1998, 2000), collocation (Stefanowitsch & Gries 2003; Gries & Stefanowitsch 2004a, b; Gries *et al* 2010), lexical priming (Hoey 2005) (for a comparison of these approaches, see Hunston 2003a, 2008, 2011, 2013a; Stubbs 2009: 27; Barlow 2011; Hanks 2013: 383-390). Among these approaches, lexical bundles and grammar patterns have been frequently employed to investigate stance expressions or evaluative language; for example, Biber and his followers have argued that lexical bundles are helpful in investigating expressions associated with stance (e.g. Conrad &

Biber 2000; Biber *et al* 2004; Biber 2006; Biber & Barbieri 2007; Salazar 2014), whereas Hunston and subsequent studies have demonstrated that grammar patterns are useful for the study of evaluation (e.g. Hunston & Sinclair 2000; Hunston 2003a, 2011; Bednarek 2008a, 2009a). The question at hand, then, is: which one is the most promising phraseological approach to investigate evaluative language in corpora.

The answer may be dependent on the aim of a research. For the current study, Pattern Grammar (PG) is selected from the wide-ranging approaches describing the phraseological tendency of language use to address issues related to appraisal. The selection of this approach to phraseology (i.e. PG) is based on two facts which make PG particularly useful for the current study. Firstly, the *Grammar Patterns* series (Francis *et al* 1996, 1998) provide relatively complete lists of grammar patterns associated with the three major word classes (i.e. nouns, verbs, and adjectives), which makes it possible to examine relatively exhaustively all these phraseological structures. Secondly, grammar patterns are useful in identifying units of meaning, which further facilitates the establishment of local grammars of evaluation (Hunston & Sinclair 2000; Hunston 2002a, 2003a, 2011; Bednarek 2008a). Since one of the main objectives of the current study is to develop a local grammar of Judgement, PG is thus considered to be a more suitable phraseological approach to evaluation than other approaches are (see Section 3.3 for more discussion).

Furthermore, it needs to be noted that the patterns to be examined in the current study are confined to adjective complementation patterns, i.e. adjectives complemented by prepositional phrases or non/finite clauses (e.g. **ADJ at**, **ADJ to-inf.**; see Section 2.2.2.3 for more discussion). This is because: 1) adjectives are the typical realisations of attitudinal meanings (Martin & White 2005: 58; Hunston 2011: 129), and 2) it has been argued that evaluative adjectives are almost always able to be used in complementation patterns (Hunston & Sinclair 2000: 95) and that “patterns involving dependent clauses and prepositions are all candidates for a contribution to evaluation” (Hunston 2011: 129). Accordingly, it can be said that adjective complementation patterns are the most promising starting point for the investigation of evaluative language in corpora.

1.3 Research Questions

In general, the present study aims to explore further the relationship between grammar patterns and attitudinal meanings from a corpus linguistic perspective, paying special

attention to adjective complementation patterns and Judgement. The research questions to be addressed are:

1. Is the current JUDGEMENT system sufficiently comprehensive and systematic to deal with Judgement resources? If not, how can the system be refined so as to enable it to deal effectively with Judgement resources?
2. What is the association between adjective complementation patterns and attitudinal meanings? This question has two aspects:
 - 2(a): can adjective complementation patterns be used as a diagnostic to distinguish types of attitudinal meanings;
 - 2(b): what can be revealed if adjective complementation patterns are taken as a heuristic to investigate attitudinal meanings?
3. What is the role of grammar patterns in the development of local grammars of evaluation? Can a local grammar of Judgement be proposed?
4. What can local grammars of evaluation be useful for?

These are the general research questions guiding this thesis throughout. Specific questions (where they occur) will be set out at the beginning of each chapter. The following presents a brief discussion of the research questions.

The first question is raised because the approach taken in this thesis (focusing on word class and pattern) is quite different from that adopted by Martin and White. It scrutinises data in quite a different way from the original research undertaken by them. It is therefore valid to ask whether the framework proposed by Martin and White is appropriate for this view of Judgement resources, and it is also necessary that a working analytic framework is in place to inform the corpus research. This question thus addresses the theoretical issue of the comprehensiveness, and the validity of the subcategorisation, of the original JUDGEMENT system. Martin and his colleagues suggest that the proposed mapping of feelings in ATTITUDE should be considered as hypotheses rather than certainties (Martin & White 2005: 46). Responding to this suggestion, researchers have refined or modified AFFECT (e.g. Bednarek 2008a, 2009a; Thompson 2014a; Ngo & Unsworth 2015) and APPRECIATION (e.g. Hommerberg 2011; S. Lee 2015; Ngo & Unsworth 2015; Hommerberg & Don in press). What is noteworthy is that the modifications on AFFECT lead one to re-think the subcategorisation of JUDGEMENT. To be specific, Bednarek (2008a) excludes the sub-type of Affect '*confident*' from her modified AFFECT system; Thompson notes

that some emotion words (e.g. *cheerful, confident*) “can be used to describe more or less permanent character traits that are not a response to a specific stimulus” and further argues that such items should be considered “as part of JUDGEMENT resources” (Thompson 2014a: 55-56). In a similar vein, Hunston (2011: 140-142) observes that some lexical items (e.g. *fanatical about, complacent in*) may realise multilayered evaluation, i.e. cases where an emotional reaction is attributed to the Emoter (Affect) but, at the same time, a judgement of the Emoter is also made (Judgement). In short, these studies, in particular Thompson (2014a), argue that emotional states (e.g. *confident, complacent*) may be construed as ethical qualities and thus have to be accounted for in terms of Judgement. While this is a plausible and powerful argument, it has to be noted that none of these studies has further addressed the question as to into which Judgement subcategory such lexical resources should be grouped. This indicates the necessity to further interrogate the subcategorisation of the current JUDGEMENT system, which will be taken up by the present study.

The second question looks into the association between adjective complementation patterns and attitudinal meanings, which is related to two aspects. The first aspect is concerned with patterns as a diagnostic. Martin and his colleagues (e.g. Martin 2003; Martin & White 2005) hypothesise that grammatical frames or grammar patterns might be used as a diagnostic to distinguish types of Attitude (i.e. Affect, Judgement and Appreciation); for example, they suggest that one canonical form realising Judgement is *it was judgement for person/of person to do that* and one realising Affect is *person feels affect about something* (see Martin & White 2005: 58-59 for more discussion). The validity of this assumption has been largely explored in Bednarek (2009a) which shows that grammar patterns are only of some limited use in differentiating types of Attitude (see Section 3.2 for more discussion).

Nevertheless, it has to be pointed out that previous studies attempting to test this hypothesis have paid little attention to adjective complementation patterns. However, as noted above, the typical realisations of attitudinal meanings are adjectives and evaluative adjectives can almost always be used in complementation patterns, which suggests that it is worthwhile to further explore the possibility of using the currently under-explored adjective complementation patterns as a diagnostic to distinguish types of attitudinal meanings.

The other aspect worth discussing is that patterns may be a useful heuristic in the investigation of evaluative language. For example, Hunston (2011: 138-150), taking

patterns as a heuristic, observes two distinctions, i.e. performed vs. reported evaluation and straightforward vs. multilayering evaluation, and further argues that the two distinctions “are important for the establishment of a local grammar [of] evaluation” (Hunston 2011: 142). However, while it has been shown that grammar patterns are a good heuristic to investigate evaluative language, the heuristic value of grammar patterns has not yet been fully explored. The present study will thus attempt to further address the issues concerning patterns as a diagnostic and patterns as a heuristic in the investigation of evaluation.

Questions 3 and 4 are related to local grammars of evaluation. Question 3 explores the roles of grammar patterns in the development of local grammars of evaluation. It is observed that grammar patterns are a good starting point for the construction of local grammars of evaluation in that grammar patterns facilitate the identification of units of meaning; this is exemplified with the local grammar of Judgement developed in the present study. Question 4 discusses the significance of local grammars of evaluation. It is argued that local grammars of evaluation, in theory, provide an alternative way to model attitudinal resources, and in practice, offer valuable insights into the automation of appraisal analysis; this in turn suggests that it is worthwhile to develop local grammars of evaluation.

To recapitulate, this study is mainly concerned with a corpus investigation into the association between grammar patterns and attitudinal meanings, with special attention being paid to adjective complementation patterns and Judgement. Issues to be addressed include the interrogation of the subcategorisation of the original JUDGEMENT system, patterns as a diagnostic and patterns as a heuristic in the investigation of evaluation, and the development of local grammars of evaluation.

1.4 Corpus and Methodology

The corpus used in the present study is the Corpus of Biography (hereafter CoB) which I have compiled by drawing those texts categorised as Biography in the British National Corpus (hereafter BNC) (see D. Lee (2001) for a detailed discussion of the classification of texts in BNC). This corpus consists of 100 texts and is approximately about 3.5 million tokens. What is perhaps worth noting is that since the purpose of this thesis is not to provide a description of the register of biography, how representative this corpus is of biography is not an issue. Biography has been selected as a text category because it can be predicted that biographical discourse will be particularly rich in language

associated with the evaluation of human beings, as biography is not only about the description of the subject's life experience, but also about the assessment of the subject's character and behaviour. (This will be shown to be true, see Section 5.4.) What is more, the BNC was fully part-of-speech tagged, so was the compiled subcorpus of Biography. This makes it easy to perform queries of grammar patterns and further helps to identify items and instances associated with Judgement.

The queries of adjective complementation patterns are performed using the BNCweb interface – the CQP edition (see Hoffman *et al* 2008). The hits returned by these queries are manually examined in order to make sure that every lexical item (i.e. the co-occurrence of lexis and grammar patterns, e.g. *good at, confident in, guilty of*) included in the current study qualifies for further analysis (see Chapter 5 for more discussion). The results of the corpus analysis serve as empirical evidence for the exploration of issues concerning patterns as a diagnostic/heuristic and for the investigation into the association between adjective complementation patterns and Judgement meanings (see Chapter 6). Furthermore, the analysis also provides the data for consideration when developing the local grammar of Judgement, as will be shown in chapters 7 and 8.

1.5 An Overview of the Thesis

The above discussion has presented the background information about the current study (e.g. why approach evaluative language from a corpus linguistic perspective, why Judgement and why adjective complementation patterns) and introduced the research questions to be addressed as well as the corpus and methodology used in the current study. These issues are explored in depth in the following chapters, an overview of which is given below.

Chapters 2 and 3 relate to literature review. Chapter 2 outlines the two theoretical frameworks, i.e. Pattern Grammar and Appraisal Theory. Chapter 3 reviews previous studies which incorporate grammar patterns into appraisal research, aiming to explore the connections between the two theoretical frameworks and to show that grammar patterns are useful for the investigation of evaluative language in corpora.

Chapter 4 focuses on refining the original JUDGEMENT system and addressing the adequacy of typology and topology in the description and characterisation of attitudinal resources. It is argued that the current JUDGEMENT system should be extended to cover those resources which construe attitudes towards emotional types of

personality (e.g. *confident, shy, arrogant, complacent*). Evidence from both personality psychology and corpus investigation is presented to support this argument. From a typological perspective, Emotivity is tentatively proposed as a new sub-type of Judgement. Issues related to the systematisation of Judgement resources and the topological description of attitudinal meanings are discussed accordingly.

Chapters 5 and 6 explore the association between adjective complementation patterns and ATTITUDE. Chapter 5 presents a corpus analysis of lexical items occurring in each adjective complementation pattern, which is primarily concerned with the examination of how these lexical items are distributed within the ATTITUDE system (i.e. Affect, Judgement, Appreciation). This quantitative information is interpreted qualitatively in Chapter 6, which suggests that adjective complementation patterns are of some use in distinguishing types of Attitude and that patterns are a very useful heuristic to investigate attitudinal meanings. In addition, the association between adjective complementation patterns and Judgement meanings is explored, which offers important insights into the discussion of some general issues such as the association between patterns and meanings, corpus data and linguistic theories, etc.

Chapters 7 and 8 are dedicated to the discussion of local grammars of evaluation. Chapter 7 develops a local grammar of Judgement. Examples are given and parsed to show the local grammar of Judgement. Chapter 8 further addresses some issues related to the local grammar of Judgement. The issues discussed include the local grammar analyses of some special cases (e.g. cases where the local grammar analysis is dependent on the attitudinal target), the significance of local grammar description, and the replicability of the methodology.

The concluding Chapter 9 brings together all the observations and arguments. It is argued that grammar patterns can greatly facilitate the investigation of evaluative language in corpora. The implications and applications of this research are discussed; and some areas worthy of future investigation are suggested. Overall, it is concluded that the present study has exemplified the feasibility and the usefulness of combining Corpus Linguistics and Systemic Functional Linguistics in evaluation research and, more generally, in language and discourse studies.

CHAPTER 2 PATTERN GRAMMAR AND APPRAISAL: AN INTRODUCTION

2.1 Introduction

This chapter introduces the two theoretical frameworks underpinning the present study, i.e. Pattern Grammar (PG) and Appraisal Theory (AT). It starts with Pattern Grammar (Hunston & Francis 2000) which is developed based on corpus investigation and observation. Generally speaking, PG is an approach to the description of English language which prioritises the behaviour of individual words. The other theoretical framework – Appraisal Theory (Martin 2000; White 2002, 2011; Martin & White 2005), will be discussed subsequently. Rooted in Systemic Functional Linguistic (SFL), AT is concerned with the description and characterisation of attitudinal resources and has been widely recognised as the most systematic and successful framework currently available to account for evaluation. Although it seems that PG and AT have nothing in common, they can be shown to be compatible when it comes to the study of evaluative language, as has been demonstrated in previous studies and will be further exemplified in the current study.

2.2 Pattern Grammar

This section presents Pattern Grammar which is mainly developed by Hunston and Francis (Francis 1993, 1995; Hunston & Francis 1998, 2000). It first sketches the historical context and then outlines the main ideas of PG, which is followed by a brief evaluation of PG.

2.2.1 Historical context

The historical context of PG can be traced back to Hornby (1954), Sinclair (1991), Francis (1993, 1995), and Hunston and Francis (1998). This section mainly introduces the work of Sinclair, Francis and Hunston because of their relevance and importance, as background information to introduce PG.

2.2.1.1 Sinclair (1991)

Sinclair proposes a research paradigm which emphasises that linguistic description and explanation should be based on the observation of a large amount of electronically-

stored authentic data. This paradigm is systematically described in his seminal work *Corpus, Concordance, Collocation* (Sinclair 1991) where several insightful observations were drawn. Two observations particularly worth mentioning are: 1) the association between sense and syntax, and 2) the phraseological tendency of language use which is generalised as the Idiom Principle. In short, Sinclair (1991: 53-56), based on his discussion of the different senses of *yield*, argues that different senses of a word can be distinguished by the patterns each sense co-occurs with and concludes that “there is a strong tendency for sense and syntax to be associated” (Sinclair 1991: 65).

The other observation Sinclair draws is termed the Idiom Principle (see, for example, Barnbrook (2007), Herbst *et al* (2011), Barnbrook *et al* (2013) and Siyanova-Chanturia & Martinez (2014), for recent studies on the Idiom Principle). Sinclair states:

The principle of idiom is that a language user has available to him or her a large number of semi-preconstructed phrases that constitute single choices, even though they might appear to be analysable into segments.

(Sinclair 1991: 110)

In general, this principle extends theoretically the observations that each word typically occurs in a limited set of syntactic structures and that forms and meanings are associated and Firth’s (1957) concept of *collocation* (see also Hunston & Francis 2000: 230-231). According to the Idiom Principle, it is the phrases that are selected in utterances and it is the phrases that carry meaning. In other words, meanings only exist in multi-word sequences or phrases, and therefore can only be identified through the investigation of those phraseological items.

The two observations discussed above have been taken farther by Francis and Hunston, as discussed below.

2.2.1.2 Francis (1993, 1995)

Francis (1993, 1995) explores further the association between sense and syntax (or between form and meaning). The difference between Sinclair (1991) and Francis (1993, 1995) is that while Sinclair’s observation is based on the discussion that different senses of a word can be distinguished by their respective patterning features, Francis’ observation is made on the basis that words occurring in a given pattern can be divided into a limited set of meaning groups (cf. Hunston & Francis 2000: 29). For example, Francis’ analysis of the appositive that-clause, i.e. the N *that* pattern in Francis *et al*

(1998), shows that the nouns occurring before the that-clause can be divided into the following meaning groups: 1) nominalisation of illocutionary force (e.g. *allegation, announcement*), 2) language activity (e.g. *formulation, generalisation*), 3) mental states vis-à-vis particular issues (e.g. *assumption, knowledge*), 4) thought processes or results (e.g. *decision, conclusion*), 5) feelings and attitudes (e.g. *annoyance, disappointment*), and 5) general nouns (e.g. *chance, danger*) (Francis 1993: 149-150; cf. Hunston & Francis 2000: 30). Francis' observation that words occurring in a pattern can be divided into a limited number of meaning groups is further supported by her analysis of the pattern 'it + link verb + adjective + clause' (e.g. *It is important that* or *It is possible to ...*) (Francis 1995). It is worth mentioning that, though other grammarians, such as Quirk *et al* (1985), had written about the extraposed subject (i.e. the *it* pattern), they had not explicitly noted the lexical restrictions on the pattern, because they regarded lexis as outside the realm of grammar. In this sense, Francis has greatly contributed to operationalising Sinclair's observation about the unity of lexis and grammar by giving these specific examples of how lexis underpins grammatical choice and vice versa.

2.2.2 Pattern Grammar in Hunston and Francis (1998, 2000)

Although Hunston and Francis (1998) focuses on verb patterns, the paper has generalised the association between patterns and meanings and has proposed a method by which the patterns associated with other word-classes (i.e. nouns and adjective) can be described; this study therefore has established the principles of pattern grammar. Simply put, Pattern Grammar, developed on the basis of corpus investigation and observation, represents a new approach to describing English language which gives priority to the behaviour of individual items (Hunston & Francis 2000; Hunston 2002a, 2013a; Barlow 2011). The fundamental ideas of PG will be presented in this section. It starts with the discussion of pattern identification, and then introduces pattern representation, i.e. how patterns are coded, which is followed by the discussion of complementation patterns. The observation that patterns and meanings are associated will be examined and exemplified subsequently.

2.2.2.1 Pattern identification

When considering the question as to how patterns can be identified, the question comes first is what a pattern is. According to Hunston and Francis,

The patterns of a word can be defined as all the words and structures which are regularly associated with the word and which contribute to its meaning. A pattern can be identified **if a combination of words occurs relatively frequently, if it is dependent on a particular word choice, and if there is a clear meaning associated with it.**

(Hunston & Francis 2000: 37, emphasis mine)

This definition of pattern suggests three general principles for identifying patterns. The first is *frequency*, i.e. the structure or sequence formed of a node word and its collocation has to occur relatively frequently. Though *frequency* as a principle for pattern identification raises some questions (see Stefanowitsch & Gries 2003; Gries & Stefanowitsch 2004a) and Hunston and Francis admit that “frequent co-occurrences of words do not necessarily indicate the presence of a pattern” (Hunston & Francis 2000: 71), *frequency* is a useful criterion in pattern identification in the sense that it provides a reference point. The second one is *dependency*, i.e. whether the node word is significant to the items it co-occurs with. This excludes those prepositional phrases giving information about time, place or manner (see Hunston & Francis 2000: 49); for example, the prepositional phrase *in the Church* in *the Archbishop of Canterbury was now too powerful in the Church* (A68 2461) is not considered as part of the pattern associated with *powerful* because it indicates a place and is not dependent on the adjective *powerful*. Lastly, for an element to be considered as part of a pattern, the element has to contribute to the meaning of the sequence wherein it occurs. Consider the following instances:

2.1 He was *good* at school. (CL2 240)

2.2 I am *good* *at* singing and projecting my image. (ADR 2055)

In example 2.1, the prepositional phrase *at school* does not qualify as a part of the pattern **ADJ at** because it does not contribute to the meaning of *good* (and also it is not dependent on the adjective *good*), whereas in example 2.2, the prepositional phrase *at singing and projecting my image* has the status of being part of the pattern **ADJ at** because it helps to specify the meaning of *good*. In short, the point is that, apart from *frequency* and *dependency*, the “interpretation of concordance lines is necessary to the identification of patterns” (Hunston & Francis 2000: 71).

It has to be pointed out that the issues concerning pattern identification are far more complicated than what has been discussed above (e.g. non-canonical patterns,

pattern variation, tag questions; see Hunston & Francis (2000: 67-81) and Mason & Hunston (2004) for more discussion on problems in identifying patterns); however, the discussion above should be sufficient for illustrating how instances of adjective complementation patterns are recognised in this study.

For the purpose of illustration, the following 30 randomly selected concordance lines of *angry* from BNC are given.

1	HHB 840	I wondered if you 're	<i>angry</i>	about -- anything in particular
2	CH3 392	Castleford officials are	<i>angry</i>	about the way the case has
3	H07 265	of support, but felt really	<i>angry</i>	about what had happened to me
4	CDY 1770	difficult to stop. She felt	<i>angry</i>	and degraded, the child she
5	GVT 1617	Mrs Syms, as she withdrew,	<i>angry</i>	and impotent. The record seemed
6	CGT 1939	and pain . His mother felt	<i>angry</i>	and incompetent about not being
7	BNU 1625	they were	<i>angry</i>	and upset. But the red
8	CH2 1834	police: [I am very	<i>angry</i>	at losing someone I loved.
9	G2V 174	with three years. I was	<i>angry</i>	at the system, and at
10	CDE 664	flustered like an	<i>angry</i>	hen. [Why, Mrs
11	HTR 927	dispensed with. I am so	<i>angry</i>	I can hardly write [it
12	G07 4070	me. He's never been	<i>angry</i>	like this before. This is
13	BLX 1726	its special hunting style. An	<i>angry</i>	mob creates confusion and prevents
14	GW9 1578	he yelled, genuinely	<i>angry</i>	now. [What were we
15	HRF 1829	guilt-ridden husband to an	<i>angry</i>	right-winger who votes for Barry
16	K52 3423	Railway enthusiasts are	<i>angry</i>	that Darlington borough council is
17	AHF 179	said: [He 's	<i>angry</i>	that she would choose to violate
18	FAJ 317	back of the court, initially	<i>angry</i>	that someone had screwed up with
19	K56 449	journalists might still feel so	<i>angry</i>	towards Chrysler that they would
20	CDK 1120	wrath did end. I was	<i>angry</i>	with my foe : I told
21	HH9 3484	partly because she was so	<i>angry</i>	with Oliver and partly because she
22	AE0 2069	extremely gratifying. I was	<i>angry</i>	with your letter (and packet
23	H8S 1742	She half expected him to be	<i>angry</i>	, but he seemed amused rather
24	FNS 409	and her face turned red and	<i>angry</i>	. [Off with their heads
25	APM 1874	Now when I speak you are	<i>angry</i>	.] [Marcus, I
26	JY2 1074	softly, [I 'm not	<i>angry</i>	.] His hand slid down
27	HWC 2071	tonight I would not make him	<i>angry</i>	. I 'd put the phone
28	K97 10999	will make a lot of people	<i>angry</i>	. It is demonstrably unfair.
29	BN1 405	she just trying to make Catriona	<i>angry</i>	? Sarah seemed to have a
30	JY2 1050	she seemed indifferent rather than	<i>angry</i>	? Though still apparently co-

Concordance lines above show that *angry* can co-occur with prepositions *about* (3 times), *at* (2 times), *with* (3 times), *towards* (1 time), and with *that-clause* (3 times), instantiating adjective complementation patterns. Moreover, *angry* can also be used as an attributive adjective to modify nouns (e.g. *angry hen*, *angry mob*) and follow link verbs, as in *felt angry*, *to be angry*. Generally speaking, these can be considered as the

patterns that are associated with the word *angry*. Following this discussion, one question raised is how the patterns can be represented or coded systematically and consistently.

2.2.2.2 Pattern representation

PG uses the “the simplest and most superficial word-class labels” to code the patterns associated with individual words; for example, **v** stands for verb group, **n** noun group (Hunston & Francis 2000: 45). The word-class whose patterns are being focused on is capitalised (i.e. in upper-case), and other elements belongs to the pattern are in lower-case. In addition, those specific words, usually grammatical ones (e.g. *for*, *with*), which are included in the patterns, are shown in italics. Thus, for example, **ADJ *for* n** means ‘adjectives followed by a prepositional phrase beginning with *for*’, **ADJ *at* n** means ‘adjectives followed by a prepositional phrase beginning with *at*’ (see also Clear *et al* 1996; Francis *et al* 1998; Hunston & Francis 1998, 2000: 33).

One more thing that needs to be pointed out is that “the same pattern can be described in terms of any one of its major elements” (Hunston & Francis 2000: 45), which makes the description of patterns potentially confusing. The suggested solution is that the coding of a pattern is dependent on the word-class whose description is being focused on. For example, *good quality* can be coded as **ADJ n** if it is the adjective whose patterns are being described, but as **adj N** if it is the noun whose patterns are being described.

2.2.2.3 Complementation patterns

Hunston and Francis explicitly state that their description is primarily concerned with complementation patterns, i.e. “the specification of items that follow the key word” (Hunston & Francis 2000: 77). Usually, it is either a prepositional phrase or non/finite clause that co-occurs with the key word, and together they form a complementation pattern (cf. Mindt 2011). The approach Hunston and Francis adopt to describe complementation patterns differs from the traditional structural interpretation in that their description focuses on the formal components of a pattern rather than the structural constituents (e.g. subject, object), which is reflected in the way patterns are coded (see Section 2.2.2.2 above). What is more, it has been noted that, though much attention has been paid to verb complementation patterns (e.g. Francis *et al* 1996; Hunston & Francis 1998; Hunston 2003b), the notion of complementation pattern can also be extended to

all word-classes (Hunston & Francis 2000: 151). It has been further pointed out that verbs (except those cases in which verbs are used intransitively) and adjectives almost always have complementation patterns (Hunston & Francis 2000; Hunston & Sinclair 2000; Hunston 2003b, 2011), whereas adverbs and the majority of nouns do not have complementation patterns (Hunston & Francis 2000: 40-42).

The current study takes the adjective complementation patterns as the starting point to further explore how grammar patterns can be incorporated into the study of evaluative language. Adjective complementation patterns are selected because 1) adjective is the word class that is most frequently associated with evaluative meanings (Martin & White 2005: 58; Hunston 2011: 129), and 2) adjectives which are used in complementation patterns always express sort of evaluative meanings (Hunston & Sinclair 2000: 95), as discussed in Section 1.2. In addition, it appears to be the case that there have not been many studies dedicated to exploring the association between adjective complementation patterns and evaluative meanings, which indicates that a systematic study focusing on adjective complementation patterns and attitudinal meanings is necessary.

Following Hunston and Francis' (2000) discussion of complementation patterns, the concept of adjective complementation pattern can be defined as a structure where an adjective co-occurs with either a prepositional phrase or a non/finite clause and whose meaning is dependent on the adjective-pattern combination. The concordance lines of the word *angry* given above can be used to exemplify the complementation patterns *angry* has: **ADJ about** (1 – 3), **ADJ at** (8 – 9), **ADJ that** (16 – 18), **ADJ towards** (19), and **ADJ with** (20 – 22). The other concordance lines are cases where adjectives are used either as an attributive adjective (**ADJ n**) or predicative adjective (**v-link ADJ**) without complementation. It has to be noted that instances where adjectives are used without complementation are not the primary concern of the present study, because it may not be possible to analyse all the patterns that adjectives have. Consequently, the number of patterns has to be limited to a manageable range. This further justifies the restriction of patterns to the complementation patterns.

2.2.2.4 Patterns and meanings

As mentioned above, it has been argued in corpus studies that sense and syntax, or patterns and meanings, are associated. For example, Sinclair (1991: 53-56) demonstrates that different senses of a word can be distinguished by the pattern each

sense is associated with; Francis (1993) and Hunston and Francis (1998) show that words occurring in the same pattern share meaning aspects and thus can be divided into a limited set of meaning groups. This association between patterns and meanings has been extensively explored by Hunston and Francis (2000) who present two supporting pieces of evidence for this argument: 1) different senses of a word tend to occur in different patterns, and 2) words occurring in the same pattern share meaning aspects (see Hunston & Francis (2000: 83-149) for more discussion).

Based on their analysis of the pattern **V of n**, Hunston and Francis (2000: 83-85) further point out that the observation that patterns and meanings are associated does not mean a one-to-one correspondence between patterns and meanings, i.e. a single pattern only occurs with words which have the same meaning, nor that the patterns a word could have can be predicted from its meaning aspects (e.g. *warn* and *threat* share meaning aspects; however, while *warn* can be used in the pattern **V of n**, *threaten* cannot).

Though the patterns that a word could have might not be predictable, the meaning of a word might be predicted from the patterns in which it occurs (cf. Willis 2003: 39-40). This has led to an alternative (and critical) argument that prepositions may “act as meaning classifiers” (Hunston 2008: 293). That is to say, the search of a preposition could identify all the instances of that preposition, and then the words (be it nouns, verbs, adjectives) co-occurring with that preposition can be identified, which makes it possible to categorise those words in terms of meaning groups. It is in this respect that it is argued that prepositions can act as ‘meaning classifiers’ (cf. Tyler & Evans 2003).

Furthermore, it is worth mentioning that, apart from that words occurring in the same pattern can be divided into a limited set of meaning groups, sometimes it is the word and the pattern together that convey the meaning. For example,

2.3 It was *big* of you to take the risk.

2.4 ... there was something very *British* about picnic.

2.5 There is something almost *American* about the minister’s informality.

(examples taken from Hunston & Francis 2000: 105)

The adjectives in the above examples have an evaluative meaning, though they normally are not evaluative when used in isolation. Example 2.3, for instance, *big*, occurring in the pattern **it v-link ADJ of n to-inf.**, does not mean ‘large in size’, but means ‘courageous’ or ‘generous’; and in examples 2.4 and 2.5, both *British* and

American, occurring in the pattern **there v-link something ADJ about n**, carry an evaluative meaning (see Hunston & Sinclair (2000), Bednarek (2009a), Hunston (2011) for more discussion). The reason for why these words which are normally not evaluative have an evaluative meaning in these patterns is because they have to keep in line with the meaning of the pattern, as suggested in Hunston and Francis (2000: 106).

The observation that patterns and meanings are associated could have at least three implications. The first is that it makes it possible to “collect together meaning groups from different patterns which have something in common” (Hunston & Francis 2000: 109). This has been exemplified by the index ‘Meaning Finder’ provided in Francis *et al* (1996: 616-622), though this has not been done for noun and adjective patterns (Francis *et al* 1998). The development of Meaning Finder would be particularly useful for language learners, because it presents almost all the options that are available to learners if they want to express one particular meaning. The second implication is that it makes it possible to develop local grammars of one particular meaning area; for example, local grammars of evaluation (e.g. Hunston & Sinclair 2000; Hunston & Francis 2000: 129-142; Bednarek 2008a; Hunston 2003a, 2011). As mentioned above, it is possible to collect the patterns which can be used to express one particular meaning. This further makes it possible to retrieve the instances expressing that meaning from large corpora by performing queries of those patterns, which enables the development of a local grammar of that particular meaning area. The third implication is also related to evaluative language. It has been noted that grammar patterns might be typically used to express one particular type of evaluation (e.g. Martin & White 2005: 58-59; Bednarek 2009a; Hunston 2011: 130). This raises the possibility of using grammar patterns as tests to distinguish different types of evaluative meanings, which has been explored in some studies (see Section 3.2 for a review of these studies).

From a theoretical perspective, the observation that patterns and meanings are associated indicates that there is ultimately no distinction between lexis and grammar (e.g. Hunston & Francis 2000; Halliday 2008: 21-76; Römer 2009). For example, the word *want* often co-occurs with the to-infinitive clause, but it seems to be impossible to reach an agreement about “whether this is a fact about lexis (the collocation of *want* and *to*) or a fact about grammar (the distribution of to-infinitive clause)” (Hunston & Francis 2000: 251). This would indicate that lexis and grammar are the same phenomena, and thus require that the relationship between lexis and grammar be reconsidered fairly radically.

2.2.3 A brief evaluation

I have outlined Pattern Grammar which, in general, represents an innovative approach to the description of English language which prioritises the behaviour of individual words as observed in large amounts of corpus data (cf. Barlow 2011). It offers new insights into the theoretical description of a language, in particular suggesting that lexis and grammar are inseparable, and into foreign language education, particularly in terms of consciousness-raising (Hunston 2002a, b, 2004b, 2009). At the same time, it should be noted that pattern grammar has some limitations as well, for example, lacking quantitative information about the frequency of an item occurring in a given pattern (see Teubert (2007) for a critical discussion of pattern grammar).

It can be said that the value of a significant study does not only arise from what has been presented in the study itself, but equally (or even more) importantly arises from what has been opened up for future exploration. This is the case for Pattern Grammar, i.e. it is valuable in its own right, and also valuable in the sense that it suggests a number of new areas worth exploring further. For example, it would be worthwhile to investigate why a specific pattern in a given context is selected out of several other possible patterns. This has been addressed in Mukherjee (2001) who suggests that pattern selection is dependent on the meaning of the pattern itself and the influence of pragmatic principles. In addition, there are also some other prospective directions suggested by PG, which are discussed in turn.

Firstly, it is promising to explore the possibility of automatic pattern recognition. Hunston and Francis suggest that it might be possible to identify automatically the patterns that a specific word could have and “look forward to the development of an automatic pattern identifier” (Hunston & Francis 2000: 272). The possibility of automatic recognition of verb patterns has been explored in Mason and Hunston (2004) and Mason (2004), which shows that “it is indeed possible to detect patterns automatically in open text” (Mason & Hunston 2004). At the same time, they also notice that there are some issues which make it quite a challenging task to recognise automatically verb patterns; these issues are 1) intervening words and pattern ambiguity, 2) non-canonical pattern, 3) multiple patterns (e.g. the verb *decide* may be coded as either **V that** or **V n** in *Modern women may decide their place is at home with children*), and 4) tagging errors (see Mason & Hunston 2004: 261-266). Future studies could attempt to solve these issues and further explore the possibility of automatic recognition

of grammar patterns, which may offer some new insights into natural language processing and information extraction.

Secondly, it is necessary and useful to develop a pattern-based pedagogic grammar. Hunston (2002a: 173-175) suggests that grammar patterns are helpful for raising learners' language-consciousness and are essential to fluency and accuracy, which means that language acquisition can be enhanced by learning grammar patterns. However, though this has been suggested in some studies (e.g. Hunston and Francis 2000; Hunston 2002a, b, 2007, 2013a), it seems that this suggestion has not been taken seriously. Clearly, this indicates both the necessity and urgency to further explore the pedagogic applications of PG.

Furthermore, PG offers new ways into the investigation of evaluative language. For example, even though Francis *et al* (1998) have not considered evaluation at all, the majority of the items occurring in each adjective pattern can, in fact, be analysed in terms of appraisal (see Appendix 1). More notably, PG raises the possibility of using grammar patterns as a diagnostic to distinguish types of attitudinal meanings, and the possibility of providing a more systematic and coherent description of evaluative language in that grammar patterns are a good starting point for the construction of local grammars of evaluation, as noted in Section 1.3. This is the topic which will be extensively discussed in the present study.

2.3 Appraisal Theory

As mentioned in Section 1.1, the phenomenon of evaluation has been discussed under various terms (e.g. stance, evaluation, appraisal); however, "it is within Systemic Functional Linguistics that the investigation of the systems of evaluative choices available to language users and other function in discourse has been carried farthest" (Thompson 2014a: 48). This refers to the APPRAISAL model which is mainly proposed and promoted by Martin and his colleagues (e.g. Coffin 1997; Eggins & Slade 1997; Martin 2000, 2003; White 1997, 2000, 2003, 2004; Martin & Rose 2003; Martin & White 2005; Hood 2010). An overview of this model is offered below.

2.3.1 An overview of Appraisal

APPRAISAL comprises three major sets of semantic resources, which are organised into three systems respectively, i.e. ATTITUDE, GRADUATION and ENGAGEMENT. The three systems are briefly discussed as follows.

2.3.2.1 ATTITUDE

ATTITUDE is concerned with three distinct but related aspects, i.e. affect – how one feels, judgement – ethical evaluation of one’s behaviour and character, and appreciation – aesthetic evaluation of products and processes (see Martin 2000; Martin & Rose 2003: 24; Martin & White 2005: 35). The three aspects are respectively termed AFFECT, JUDGEMENT and APPRECIATION.

Affect “deals with resources for construing emotional reactions” (Martin & White 2005: 35). Below are some illustrative examples taken from the CoB,

- 2.6 The old Frenchman was *delighted with* the Tabaco and soap. (A61 560)
- 2.7 he was *dissatisfied with* purely materialistic explanations for life’s mysteries. (A7C 334)
- 2.8 I get very *bored with* reading how difficult he is. (AB5 954)

Judgement “is concerned with resources for assessing behaviour according to various normative principles” (Martin & White 2005: 35). For example,

- 2.9 She was really *good at* baking. (BN6 204)
- 2.10 He was very *brave about* the whole thing. (ADR 613)
- 2.11 he was undoubtedly *modest about* his qualifications and achievements. (GTD 44)

Appreciation deals with “resources for construing the value of things, including natural phenomena and semiosis (as either product or process)” (Martin & White 2005: 36). For example,

- 2.12 these things are not *good for* our life support system or for our quality of life. (A7H 1475)
- 2.13 The twentieth century has become *notorious for* its rejection of rationality. (AE8 526)
- 2.14 This was a city *famed for* its hospitality to servicemen. (AMC 526)

What has been discussed above is a sketchy outline of the ATTITUDE system, more details of which will be given in Section 2.3.3 below.

2.3.2.2 GRADUATION

GRADUATION is concerned with two aspects – how attitude is amplified or downgraded and how the boundaries between categories are blurred (Martin 2003; Martin & White 2005: 37; Hood 2010: 85-105; Thompson 2014a: 49). In other words, graduation has to do with ‘two axes of scalability’ – the scale of intensity and the scale

of prototypicality (Martin & White 2005: 137), which are termed ‘force’ and ‘focus’ respectively.

Graduation according to intensity is referred to as ‘force’, which has to do with intensification and quantification. Assessment related to intensification can be realised by “comparative and superlative morphology, repetition, and various graphological and phonological features (alongside the use of intensified lexis – *loathe* for *really dislike*, and so on)” (Martin & White 2005: 37). Assessment related to quantification deals with resources which “provide for the imprecise measuring of numbers [...] and imprecise measuring of the presence or mass of entities according to features such as their size, weight, distribution or proximity” (Martin & White 2005: 141). Illustrative examples are *few miles*, *large amount*, *nearby mountain*, etc.

Graduation according to prototypicality (i.e. whether a category is prototypical) is referred to as ‘focus’ which has to do with either sharpening or softening the status of an item with respect to a specific category. According to Martin and White, “[i]nstances of **sharpening** often strongly flag a positive attitudinal assessment [...] while instances of purported marginality flag a negative assessment” (Martin & White 2005: 139, emphasis original). For example, instances such as *a real hero*, *a true friend* up-scale the prototypicality of the category under evaluation, whereas instances such as *he was wearing some kind of rock ‘n’ roll suit*, *this was a sort of celebration meal* down-scale the prototypicality of the category that is being evaluated (see Martin & White 2005: 138-139).

2.3.2.3 ENGAGEMENT

ENGAGEMENT is based on Bakhtin’s (1986) notion of heteroglossia (Miller *et al* 2014: 108). It deals with resources of intersubjective positioning, i.e. how different voices or viewpoints are positioned in texts. It is broadly categorised as ‘monoglossia’, i.e. no other voices or viewpoints are involved, and ‘heteroglossia’, i.e. other voices or viewpoints are allowed for dialogic interaction (White 2003; Martin & White 2005: 92-135). It is the latter that is frequently discussed in the APPRAISAL model.

According to Martin and White, heteroglossic resources can be further divided into two broad categories: dialogic expansion – resource which “makes allowances for dialogically alternative positions and voices” and dialogic contraction – resource which closes down or restricts the space for alternative voices or viewpoints (Martin & White 2005: 102-113). Dialogic expansion can be realised by *Entertain* – “those wordings [e.g.

it seems, perhaps, maybe] by which the authorial voice indicates that its position is but one of a number of possible positions and thereby, to greater or lesser degrees, makes dialogic space for those possibilities” (Martin & White 2005: 104) and by *Attribute* – “those formulations [e.g. *X suggests, according to X*] which dissociate the proposition from the text’s internal authorial voice by attributing it to some external source” (Martin & White 2005: 104). Resources realising dialogical contraction are divided into *Disclaim* – “meanings by which some dialogic alternative is directly rejected or supplanted, or is represented as not applying” and *Proclaim* – “meanings by which, through some authorial interpolation, emphasis or intervention, dialogic alternatives are confronted, challenged, overwhelmed or otherwise excluded” (Martin & White 2005: 117-118). *Disclaim* can be realised by negative expressions or expressions associated with concession or counter expectation (e.g. *even though, surprisingly*), and typical realisations of *Proclaim* are *obviously, the fact is, X demonstrates that* (see, for example, White (2011: 27-28) and Miller *et al* (2014: 111) for more exemplification).

The discussion above gives an overview of the APPRAISAL model which can be presented as below (see Figure 2.1).

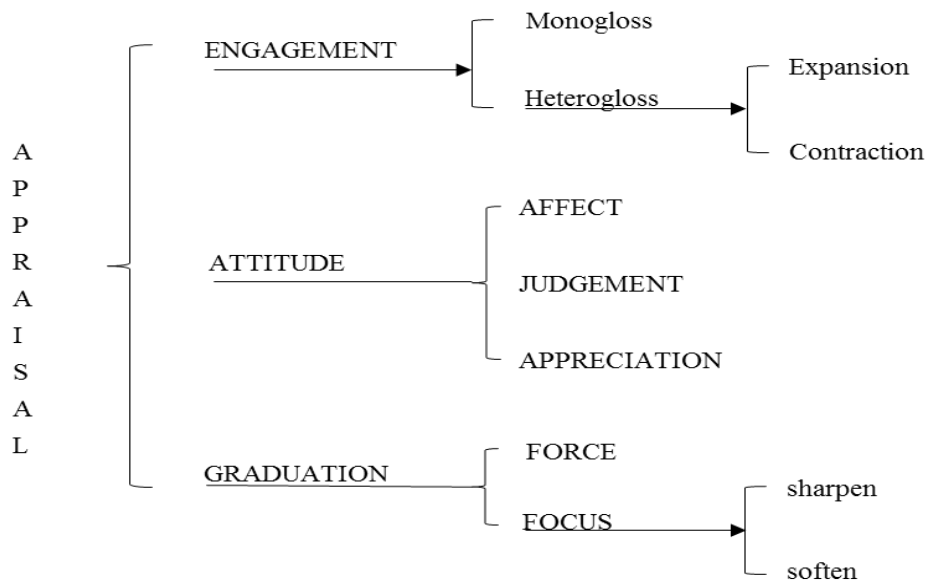


Figure 2.1: An overview of the APPRAISAL model (adapted from Martin & White 2005: 38)

As mentioned earlier, the focus of the present study is the ATTITUDE system, in particular the subsystem of JUDGEMENT, which is discussed in more detail in the following subsection.

2.3.2 The ATTITUDE system

2.3.2.1 AFFECT

AFFECT, modelled as a semantic system for the construal of emotions, deals with “the resource deployed for construing emotional responses (‘happiness, sadness, fear, loathing’, etc.)” (Martin 2000: 145). The realisations of Affect range from nouns (i.e. emotion is construed as participants) to verbs (i.e. emotion is construed as processes) and to adjectives (i.e. emotion is construed as attribute or quality) (Halliday 1998; Martin & White 2005: 46). In order to classify Affect, Martin and White draws on several factors which are probably best summarised in Bednarek (2008a) and quoted as follows:

Factor 1: emotions are grouped into three major sets: **in/security** (*the boy was anxious/confident*) – **dis/satisfaction** (*the boy was fed up/absorbed*) – **un/happiness** (*the boy was sad/happy*).

Factor 2: the feelings are culturally construed as positive or negative: **positive affect** (*the boy was happy*) vs. **negative affect** (*the boy was sad*).

Factor 3: the feelings relate to future states (triggers) or existing ones: **realis** (*the boy liked the present*) vs. **irrealis** (*the boy wanted the present*). Irrealis affect is categorized as **dis/inclination** (fear/desire).

Factor 4: the feelings are graded in terms of a cline of **intensity**: low (*like*) – median (*love*) – high (*adore*).

Factor 5: the feelings are construed as directed at/reacting to some external agency or as a general mood: **reaction to other** (*the boy liked the teacher/the teacher pleased the boy*) vs. **undirected mood** (*the boy was happy*).

(Bednarek 2008a: 154, emphasis original)

To put it simply, AFFECT is typologically grouped into three major sets: Un/happiness, In/security and Dis/satisfaction, which is presented with illustrative examples as follows (see Table 2.1 – 2.3 below)

Table 2.1: Un/happiness (Bednarek 2008a: 155)

un/happiness			
unhappiness		happiness	
misery (mood: in me)	antipathy (directed feeling: ‘at you’)	cheer	affection
<i>down, sad, miserable</i>	<i>dislike, hate, abhor</i>	<i>cheerful, buoyant, jubilant</i>	<i>be fond of, love, adore</i>

Table 2.2: In/security (Bednarek 2008a: 155)

in/security			
insecurity		security	
disquiet	surprise	confidence	trust
<i>uneasy, anxious, freaked out</i>	<i>startled, jolted, staggered</i>	<i>together, confident, assured</i>	<i>comfortable with, confident in/about, trusting</i>

Table 2.3: Dis/satisfaction (Bednarek 2008a: 155)

dis/satisfaction			
dissatisfaction		satisfaction	
ennui	displeasure	interest	pleasure
<i>tremble, fearful, wary</i>	<i>angry, sick of, furious</i>	<i>involved, absorbed, engrossed</i>	<i>satisfied, pleased, thrilled</i>

In addition, factor 3 suggests one more dimension of Affect, i.e. inclination vs. disinclination (see Table 2.4 below).

Table 2.4: Dis/inclination

dis/inclination	
disinclination	inclination
fear	desire
<i>tremble, wary, fearful, terrorised</i>	<i>request, demand, long for, miss</i>

The above discussion presents the AFFECT system proposed by Martin and his colleagues. It is worth mentioning that this system has recently been modified by Bednarek (2008a: 152-172) where she argues that Dis/inclination and Surprise should also be established as sub-types of Affect (cf. Ngo & Unsworth 2015). This modification further leads to the re-thinking of the subcategorisation of Judgement, which will be discussed in more detail in Section 4.3.1.

2.3.2.2 JUDGEMENT

According to Martin and White (2005), Judgement:

can be divided into those dealing with ‘social esteem’ and those oriented to ‘social sanction’, both of which are further regionalized into more delicate meaning categories. Judgements of esteem have to do with ‘normality’ (how unusual someone is), ‘capacity’ (how capable they are), and ‘tenacity’ (how resolute they are); judgements of sanction have to do with ‘veracity’ (how truthful someone is) and ‘propriety’ (how ethical someone is).

(Martin & White 2005: 52)

Simply put, Judgement is concerned with two broad categories – judgement of social esteem and judgement of social sanction, and the judgement meanings are systematised into five subcategories in the current system of JUDGEMENT. The system of JUDGEMENT, with illustrative examples for each sub-type of Judgement, is presented in Table 2.5 below.

Table 2.5: The JUDGEMENT system in APPRAISAL (adapted from Martin & White 2005: 53)

Social esteem	<i>normality</i>	how special <i>lucky, fortunate, normal, familiar, peculiar, celebrated, etc.</i>
	<i>capacity</i>	how capable <i>powerful, vigorous, robust, expert, shrewd, weak, stupid, etc.</i>
	<i>tenacity</i>	how dependable <i>brave, heroic, loyal, dependable, adaptable, timid, etc.</i>
Social sanction	<i>veracity</i>	how honest <i>truthful, honest, frank, deceptive, blunt, devious, tactful, etc.</i>
	<i>propriety</i>	how far beyond reproach <i>good, moral, kind, fair; humble, polite, respectful, bad, evil, etc.</i>

So far, I have introduced the two types of Attitude which are related to human beings, i.e. the construal of emotional reaction and the evaluation of character/behaviour. What is noteworthy is that lexis associated with the evaluation of human beings does not always neatly fit into the two categories. It is observed that there are some items which construe simultaneously the emotional reaction and judgement. For example,

2.15 I began to get very *complacent* in my guitar playing. (ART 2190)

2.16 Dustin is *passionate* about his work. (C9U 148)

2.17 he no longer felt *confident* in his judgements about contemporary writing. (EFX 1355)

It is more or less controversial to simply group these items (i.e. *complacent*, *passionate*, *confident*) into either Affect or Judgement. What is special about these items is that they construe simultaneously both affective and judgement meaning (cf. Hunston 2011: 140); for instance, in example 2.15, the emotional response *complacent* is attributed to the Emoter ‘I’, but a judgement (i.e. it is inappropriate to behave complacently) is also made. This makes it difficult to classify them.

Nevertheless, it will be argued that these items can be characterised as emotion-related personality descriptors (Johnson-Laird & Oatley 1989) and thus have to be accounted for in terms of Judgement. This, however, raises another question, that is,

which Judgement category should these items be grouped into? I will return to this question in Chapter 4.

2.3.2.3 APPRECIATION

Appreciation is concerned with the aesthetic evaluation of products and/or processes. Three typological criteria are drawn for the classification of appreciating meanings (see Martin 2000; Martin & White 2005: 56). The first one is related to our reactions to the things under evaluation, which has two sub-values, 1) impact: does it catch our attention, and 2) quality: does it meet our needs. Secondly, appreciation has to do with the ‘composition’ of the appraised entity, i.e. whether it is balanced: does it hang together, and whether it is complex: is it hard to use or follow. Lastly, appreciation is concerned with the value of the things under evaluation: is it worthwhile (see, for example, S. Lee (2015) for a more detailed classification of Valuation). The APPRECIATION system is shown in Table 2.6 below.

Table 2.6: The APPRECIATION system in APPRAISAL (adapted from Martin & White 2005: 56)

Reaction	<i>impact</i>	does it catch our attention: <i>fascinating, remarkable, exciting, boring, tedious, dull, etc.</i>
	<i>quality</i>	does it meet our needs: <i>good, beautiful, lovely, bad, plain, ugly, etc.</i>
Composition	<i>balance</i>	does it hang together: <i>balanced, symmetrical, logical, uneven, irregular, flawed, etc.</i>
	<i>complexity</i>	is it hard to use or follow: <i>detailed, clear, simple, unclear, simplistic, monolithic, etc.</i>
Valuation	<i>value</i>	is it worthwhile: <i>valuable, real, priceless, worthless, significant, common, etc.</i>

Like AFFECT, APPRECIATION has recently been refined as well (e.g. Hommerberg 2011; S. Lee 2015; Ngo & Unsworth 2015; Hommerberg & Don in press).

2.3.3 Appraising APPRAISAL

Overall, Martin and his colleagues’ description of evaluative language is comprehensive and coherent in that they do not only discuss different types of attitudes (i.e. ATTITUDE), but also discuss how the attitudes are graded (i.e. GRADUATION) and how intersubjective attitudes are positioned (i.e. ENGAGEMENT). The usefulness of this model in analysing evaluative language has been exemplified in quite a number

of studies (e.g. Coffin & O'Halloran 2006; Hood 2007; Scott 2008; Ethelston 2009; Pounds 2010; Gales 2011; Read & Carroll 2012; Almutairi 2013; Ryshina-Pankova 2014; Adendorff & Smith 2014; S. Lee 2015; Hommerberg & Don in press). This indicates that it would not make much sense to repeat the value of the APPRAISAL model, which is indeed very difficult to overestimate. In consequence, this section focuses on discussing some aspects which may have been neglected or overlooked in the current APPRAISAL model (cf. Macken-Horarik 2003; White 2012; Thompson 2014a; Macken-Horarik & Isaac 2014; Kaktiņš, 2014; Ngo & Unsworth 2015; Drasovean & Tagg forthcoming).

To start with, apart from that the JUDGEMENT system needs to be refined (see Section 2.3.2.2), there are some other issues worth discussing. The first one is related to the representation of illustrative examples. Martin and his colleagues (e.g. Martin & Rose 2003; Martin & White 2005) list words in isolation as illustrative examples for each meaning category. Unfortunately, this may be misleading, in particular when some general evaluative adjectives (e.g. *good*, *right*, *bad*) are concerned (cf. Bednarek 2009a). For example, it is noticed that *good* is given under the category Judgement: Propriety; however, *good* has different meanings when it co-occurs with different patterns. To be specific, *good* in **ADJ *with*** can be used to make a judgement about either someone's behaviour (e.g. *he is very good with the crew*) or his/her ability (e.g. *I'm not very good with things like that*); *good* in **ADJ *at***, on the other hand, is obviously always used to make a judgement about someone's ability (e.g. *Lewis is extremely good at describing the actual territory*). This suggests that listing individual words as examples of each category is not ideal; instead, it would be better to list word-pattern combination (e.g. *good at*, *good with*) as illustrative examples because "the unit of meaning identification is not the word, nor the pattern, but the word-pattern combination" (Hunston 2003a: 351).

Secondly, while the inclusion of emotional reaction in ATTITUDE makes the APPRAISAL model comprehensive and coherent, the relationship between the construal of emotion and the ethical and aesthetic evaluation may need to be reconsidered. In general, researchers have suggested or taken for granted that AFFECT is the most basic or central system for the construal of attitude and JUDGEMENT and APPRECIATION could be interpreted as institutionalisations of AFFECT (e.g. Martin 2000: 147, 2003; Painter 2003; Martin & White 2005: 45; Moreno-Ortiz & Pérez-Hernández 2014: 92). In particular, Martin argues that:

As JUDGEMENT, AFFECT is recontextualised as an evaluation matrix for behaviour, with a view to controlling what people do. As APPRECIATION, AFFECT is recontextualised as an evaluation of matrix for the products of the behaviour (and wonders of nature), with a view to valuing what people achieve.

(Martin 2000: 147)

This seems to suggest that emotion is the cause, rather than the effect, of appraisal. But is this really the case? In other words, is emotion the cause, or the consequence, of appraisal? Studies in emotion psychology, in particular appraisal theorists of emotion psychology (see Moors *et al* (2013) for more discussion) have suggested that appraisal is the cause of (most) emotions rather than emotion being the cause of appraisal, though there also are some critics against this argument (see, for example, the special issue in *Cognition & Emotion* 21(6) which offers an extensive debate over the issue concerning whether or not appraisal is the cause of emotions). Despite the critics, there have been a number of studies (e.g. Reisenzein 1995; Downes 2000; Ellsworth & Scherer 2003; Moors 2009, 2010, 2013; Moors & Scherer 2013) which have argued in favour of the claim made by appraisal theorists, that appraisal is the cause of (at least) most emotions. Apart from emotion psychology, linguistic research has also suggested that “emotions are usually caused by triggers” (Bednarek 2008a: 90). This view is held in the present study as well, that emotion is elicited by, and is the consequence of, appraisal.

At the same time, it is arguable that appraisal can cause emotions and emotion can also cause appraisal, as pointed out in Moors (2010). It should thus be noted that emotion indeed has an impact on how we evaluate. But the question is which one is more basic or central to evaluation. Moors and Scherer’s (2013) explanation appears to be useful. They point out that while appraisal can be the cause as well as the consequence of emotion, the distinction between them lies in which one, i.e. appraisal as cause or appraisal as consequence, occurs more frequently or reflects more accurately the reality.

The answer will become clearer if we consider whether it is more logical and plausible to say *we are angry because of someone’s inappropriate behaviour* or *we are angry and therefore we judge someone’s behaviour as inappropriate*. Clearly, the first expression (in which emotion is the consequence of appraisal) is more plausible. That is to say, we have specific emotions because it is triggered by specific appraisal, rather than we appraise things in a specific way because we have specific emotions. In this

sense, it does not seem to be plausible to argue that AFFECT is the centre of ATTITUDE.

On the other hand, it may be reasonable to argue that JUDGEMENT should be considered as the basic system in ATTITUDE. This is because all the three types of attitudinal meanings are more or less related to human beings. For example, the evaluator, i.e. who evaluates, is always a human subject; human targets can be appreciated as well as judged (cf. White 2011: 25-26). Even in terms of Appreciation, it is arguable that the appreciated ‘things are in/directly related to human behaviour. The upshot of the discussion, then, is that the relationship between Affect, Judgement and Appreciation needs to be reconsidered.

Third, although it has been suggested that some grammatical frames or patterns are associated with evaluation (e.g. Martin & White 2005: 58-59), it also seems that appraisal research has not fully explored the value of these linguistic patterns in the investigation of attitudinal meanings. In other words, the evaluative potential of some grammatical constructions has been overlooked (though this might result from the fact that APPRAISAL is primarily concerned with meaning). This issue has been taken further by studies which integrate grammar patterns into the study of evaluative language (e.g. Hunston & Sinclair 2000; Hunston 2003a, 2011; Bednarek 2009a), which show that patterns are the vehicle of evaluative meanings and patterns may be of some use in distinguishing types of attitudes.

For example, it has been shown that the patterns like *it v-link ADJ of n to-inf.* and *there v-link something ADJ about n* always express sort of evaluative meanings, as discussed in Section 2.2.2.4 above. Furthermore, it is observed that the sequence *what a/an (adj.) N* is also always associated with evaluation, which, however, has rarely been discussed. For example,

- 2.18 *What a man* to spend Christmas with! (GUD 3548)
- 2.19 *What a way* to spend the morning. (A61 346)
- 2.20 *What an evening.* (ACE 2225)
- 2.21 *What an old hippy* I am. (A0L 2501)
- 2.22 *What a small man* Peter is. (ABL 1182)

It can be seen from examples 2.18 – 2.21 that any words occurring in this pattern can convey an evaluative meaning, no matter whether the word in its own right is evaluative or not (e.g. *way*, *evening*). This clearly shows that it is the pattern that carries the evaluative potential and whose primary function is to evaluate, which further

exemplifies that grammar patterns could be useful in the study of evaluative language. However, since this has not been fully explored, it is necessary to further look into those grammatical constructions or patterns that are associated with evaluation.

Lastly, it is important to assess the validity of the mapping of Attitude proposed in the appraisal model, since the three-way taxonomy of Attitude is considered as hypotheses rather than certainties (White 2002: 7; Bednarek 2009a). For example, Martin and White state that:

... our maps of feeling (for **affect**, **judgement** and **appreciation**) have to be treated at this stage as hypotheses about the organisation of the relevant meanings – offered as a challenge to those concerned with developing appropriate reasoning, as a reference point for those with alternative classifications and as a tool for those who need something to manage the analysis of evaluation in discourse.

(Martin & White 2005: 46)

This raises the question of to what extent the trichotomy of Attitude into Affect, Judgement and Appreciation is valid. Further, an even more critical question is how the validity of the trichotomy can be assessed. These questions have to some extent been investigated in Bednarek (2009a) and Hunston (2011); however, it is necessary to further explore these issues, because these issues have not been fully explored and because the exploration of these issues can contribute to developing a more realistic and fine-grained framework of evaluation.

The present study will attempt to offer some suggestions and/or solutions to address these issues discussed above.

2.4 Summary

In this chapter, I have introduced the two theoretical frameworks (i.e. Pattern Grammar and Appraisal Theory) which underpin the current study. It has been argued that PG is valuable in that it represents a new approach to the description of English and AT is the most systematic framework currently available for accounting for evaluation. Although it appears to be the case that they do not have much in common, they are connected when it comes to the study of evaluative language. This connection, which has been partially discussed in this chapter, will be further and fully explored in the following chapter.

CHAPTER 3 PATTERN GRAMMAR AND APPRAISAL: EXPLORING CONNECTIONS

3.1 Introduction

In Chapter 2, I have outlined the two theoretical frameworks (i.e. Pattern Grammar and Appraisal Theory) and mentioned that they are compatible in the study of evaluative language. However, it has not been made clear how they are connected due to space constraints. This chapter therefore attempts to further and fully explore the connections between them. It will be argued that grammar patterns 1) may be used as a diagnostic and/or heuristic to investigate evaluative language, and 2) are essential and crucial for the development of local grammars of evaluation. Structurally, this chapter starts with the discussion of using language patterns as a diagnostic to distinguish types of attitudinal meanings (i.e. Affect, Judgement and Appreciation) and the discussion of patterns as a heuristic. The concept of local grammar will then be introduced and the selection of Appraisal Theory and Pattern Grammar as the theoretical frameworks for developing local grammars of evaluation will be further justified, which is followed by a review of some previous studies of evaluative language conducted from a local grammar perspective. Lastly, a brief account of the current study will be given.

3.2 Grammar Patterns as a Diagnostic and Grammar Patterns as a Heuristic

3.2.1 Grammatical frames in Martin and White (2005)

It has been suggested that grammatical frames (a term similar to grammar patterns) might be useful for making distinctions between types of Attitude, i.e. Affect, Judgement and Appreciation (e.g. Martin 2003; Martin & White 2005: 58-59). In particular, Martin and White (2005: 58) argue that it may be possible to distinguish types of attitudes by establishing some grammatical frames by which each type of attitude is canonically realised. They propose that 1) a useful distinguishing frame for Affect is the relational attributive process realised by the verb *feel*:

{person feels **affect** about something}

{it makes person feel **affect** that [proposition]}

I feel **happy** (about that/that they've come).

It makes me feel **happy** that they've come.

2) a useful distinguishing frame for Judgement is a relational attributive process which ascribes an attribute to the person's behaviour:

{it was **judgement** for person/of person to do that }

{(for person) to do that was **judgement** }

It was **silly** of/for them to do that.

(For them) to do that was **silly**.

and 3) a useful distinguishing frame for Appreciation is a mental process which ascribes an attitude to a product or process, or more generally a 'thing':

{Person consider something **appreciation** }

{Person see something as **appreciation** }

I consider it **beautiful**.

They see it as **beautiful**.

These are the grammatical frames suggested by Martin and White (2005: 58-59), which raises the possibility of using specific frames or structures to distinguish types of attitudes. However, Martin and White have not made clear in what sense these grammatical frames are useful for distinguishing types of attitudes. In consequence, there might be different interpretations; for example, they may be suggesting that instances are associated with a particular type of Attitude as long as they can be paraphrased using particular frames, or that the frames can themselves be used to identify or distinguish types of attitudinal lexis. This study takes the latter interpretation, because there are words which in isolation are not associated with a particular type of attitude, but can be associated with that type of attitudinal meaning when occurring in a particular frame. For example, *good* normally is not related to affective meaning, but it is when it occurs in the Affect frames, as in *and that made me feel very good indeed* (BMM 1388). This suggests that some particular frames might be useful for recognising or identifying attitudinal lexis.

The question, then, is to what extent these grammatical frames could be useful for identifying or differentiating types of attitudinal lexis. This question has been addressed by Bednarek (2009a) who investigates extensively whether linguistic patterns are useful in distinguishing types of Attitude.

Using the British National Corpus (BNC), Bednarek's (2009a) study shows that while the first grammatical frame (i.e. *person feels **affect** about something*) for

diagnosing Affect is relatively useful, the second one (i.e. *it makes person feel affect that [proposition]*) occurs rarely in the corpus, and consequently, it does not seem to be diagnostically helpful. As for the diagnosing frames for Judgement, Bednarek's analysis suggests that this frame is typically associated with judgement lexis, though a few non-judgement lexis (e.g. *unnecessary, irritating*) can also occur in this frame. Therefore, generally speaking, this grammatical frame could be to some extent helpful in identifying judgement lexis. This has been confirmed by Hunston (2011: 130-136) who further points out that the two grammatical frames are used to construe different types of judgement, i.e. the frame *it was judgement for person to do that* is typically associated with judgements of legality or appropriateness and the frame *it was judgement of person to do that* is prototypically associated with 'moral' judgement.

Bednarek's investigation of the Appreciation frames informs her that these frames occur rather infrequently, and in consequence, it would not be safe to make any general statements. At the same time, Bednarek notices that one variation of the Appreciation frames, i.e. replacing the specific verb *consider* with *find*, occurs much more frequently. She thus further analyses three sub-patterns: ① *I find it ADJ*, ② *I find it ADJ to-inf. clause*, and ③ *I find it ADJ that clause*. Her analysis suggests that the first sub-pattern occurs rather infrequently and only with what she terms as COVERT AFFECT lexis (i.e. items indirectly denote an emotional response, e.g. *this is surprising/disappointing*). The second sub-pattern, i.e. the one with a to-infinitive clause, occurs most frequently. The observation she draws is that this pattern most often involves lexis indicating 'difficulty' which could be considered as Appreciation: composition: complexity in terms of appraisal, or as in/comprehensibility in terms of Bednarek's (2006) parameter-based framework of evaluation (Bednarek 2009a: 178). Lastly, Bednarek's analysis of the third sub-pattern indicates that this pattern is typically associated with 'unexpectedness' lexis (e.g. *curious, incredible, extraordinary*) which, in terms of appraisal, could be classified either as Appreciation: reaction: impact or as Judgement: normality.

Based on the discussion above, it seems plausible to argue that the grammatical frames suggested by Martin and White (2005: 58-59) may be of some use in distinguishing types of attitudinal lexis, in particular the frames for diagnosing Affect and Judgement (cf. Bednarek 2009a). However, since these grammatical frames are rather specific, i.e. these frames involves specific words (e.g. *feel, find*), they "may be relatively useless for the development of automated parsing software" (Bednarek 2009a:

179). This indicates the necessity to further explore the possibility of using more general grammar patterns as a diagnostic to distinguish types of attitudes. This possibility has been explored in some studies, in particular in Bednarek (2009a) and Hunston (2011), which are discussed below.

3.2.2 Grammar patterns as a diagnostic and ATTITUDE

3.2.2.1 Bednarek (2009a)

It has been said that the three-way classification of Attitude into Affect, Judgement and Appreciation should be taken as hypothesis rather than certainty (White 2002: 7; Martin & White 2005: 46). This indicates that it is important to assess the validity of the distinctions made between types of Attitude. Though there is no agreement about how to do so, one possible way could be to investigate whether this classification can be supported by differentials in form (see Section 7.4.5.3 for an alternative), because it has been suggested that distinctions worth drawing are encoded in naturally occurring language (e.g. Austin 1956; Saucier & Goldberg 2001). This is the way in which Bednarek (2009a) explores the validity of Martin and his colleagues' three-way classification of Attitude.

Bednarek (2009a), starting with the distinction drawn between opinion and emotion, argues that emotion can be further divided into OVERT AFFECT, i.e. resources construe directly an emotional response, and COVERT AFFECT, i.e. resources indirectly denote an emotional response (e.g. *this is a surprise*; *this is a disappointment*). Accordingly, she proposes a re-classification of appraisal lexis (see Figure 3.1 below).

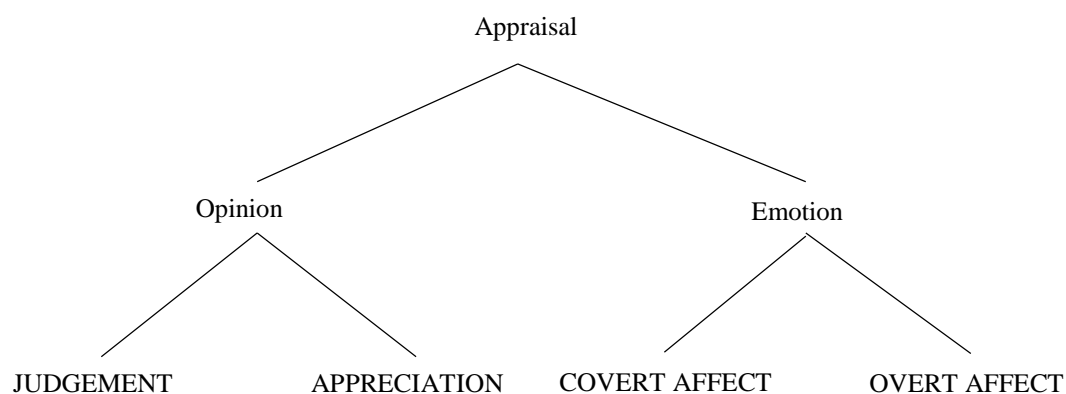


Figure 3.1: Re-classifying appraisal lexis (adapted from Bednarek 2009a: 167)

The question, then, is: to what extent can this classification of appraisal lexis be supported with corpus evidence of formal distinctions? In order to address this question, Bednarek (2009a) examined nine linguistic patterns which have been said to be diagnostic in previous studies (e.g. Hunston & Sinclair 2000; Hunston 2003a). Examples of these patterns are given below (see Table 3.1).

Table 3.1: Patterns analysed in Bednarek (2009a)

Pattern 1	it + link verb + adjective group + finite/non-finite clause e.g. <i>it was <u>reasonable</u> (Judgement) / <u>wonderful</u> (Appreciation) / <u>distressing</u> (Covert Affect) to ...</i>
Pattern 2	it + link verb + adjective group + off/for + n + non-finite clause e.g. <i>it was <u>silly</u> (Judgement) / <u>unnecessary</u> (Appreciation) / <u>touching</u> (Covert Affect) of somebody to ...</i>
Pattern 3	v + it + adj + that-cl. (presumably: find, consider) e.g. <i>I find it <u>dreadful</u> (Appreciation) / <u>odd</u> (Judgement) / <u>frustrating</u> (Covert Affect) that ...</i>
Pattern 4	it + v + n + adj + that-cl. e.g. <i>It makes me feel <u>happy</u> (Overt Affect) that they've come</i>
Pattern 5	v + it + as + adj / v + it + adj e.g. <i>They see it as <u>beautiful</u> (Appreciation) / <u>inferior</u> (Judgement); some men seemed proud that they weren't romantic, viewing it as <u>boring</u> (Covert Affect).</i>
Pattern 6	There + link verb + adj group + something/anything/nothing + about/in + n group/ing-cl e.g. <i>There is nothing <u>sacrosanct</u> (Appreciation) / <u>brave</u> (Judgement) / <u>depressing</u> (Covert Affect) about ...</i>
Pattern 7	link verb + adj group + to-inf. clause e.g. <i>Horses are <u>pretty</u> (Appreciation) to look at; you are <u>right</u> (Judgement) to say that; doing things that are <u>interesting</u> (Covert Affect) to do; Benjamin had been rather <u>overawed</u> (Overt Affect) to meet one of the Billington family</i>
Pattern 8	link verb + adjective group + that-cl. e.g. <i>he was <u>angry</u> (Overt Affect) / <u>right</u> (Appreciation) / <u>lucky</u> (Judgement) that ...</i>
Pattern 9	noun group + link verb + adjective group + prepositional phrase e.g. <i>the pitch is <u>perfect</u> (Appreciation) for cricket; he is <u>modest</u> (Judgement) about the extent to which it has brought him fame; the people are <u>impatient</u> (Overt Affect) for change; this is very <u>distressing</u> (Covert Affect) for Carol.</i>

Based on the analysis of these linguistic patterns, Bednarek summarised the results, which is reproduced below (see Table 3.2). The tick mark '√' indicates that lexis occurring in a given pattern can realise a given type of Attitude, and the cross mark '×' means no lexis occurring in a given pattern can be found realising a given type of Attitude (this convention applies to the thesis throughout).

The analysis suggests that APPRECIATION and JUDGEMENT share all nine patterns, which indicates that these patterns are not helpful for differentiating appreciating lexis from judgement ones. Meanwhile, it is shown that OVERT AFFECT

only shares three patterns with APPRECIATION and JUDGEMENT and two with COVERT AFFECT, which indicates that there are some patterns (e.g. pattern 4) that can be used to distinguish OVERT AFFECT from the other three types of attitudinal lexis. Or more generally, this suggests that grammar patterns could be of some use in making distinctions between opinion lexis and emotion lexis. In addition, Bednarek's analysis shows that it appears to be reasonable to separate COVERT AFFECT from other types of Attitude. This is because though COVERT AFFECT shares most of the patterns with APPRECIATION and JUDGEMENT, the fact that it cannot be used with pattern 8 (i.e. *link verb + adjective group + that clause*) in which appreciating and judgement lexis can be used "points to its distinctiveness" (Bednarek 2009a: 171).

Table 3.2: A summary of patterns and attitudinal lexis (Bednarek 2009a: 171)

Pattern Lexis	1	2	3	4	5	6	7	8	9
JUDGEMENT	√	√	√	×	√	√	√	√	√
APPRECIATION	√	√	√	×	√	√	√	√	√
COVERT AFFECT	√	√	√	×	√	√	√	×	√
OVERT AFFECT	×	×	×	√	×	×	√	√	√

Overall, Bednarek (2009a) is valuable in that she has largely explored the possibility of using patterns as a diagnostic to assess the validity of the three-way classification of ATTITUDE. Her study shows that 1) the basic distinction made between opinion and emotion in APPRAISAL can be supported by linguistic patterns, 2) it is reasonable to divide emotion into OVERT AFFECT and COVERT AFFECT, and 3) linguistic patterns are generally of no use in distinguishing the two types of opinion lexis, i.e. Appreciation and Judgement.

At the same time, it has to be pointed out that Bednarek (2009a) has only roughly discussed adjective complementation patterns (e.g. pattern 9) which, on the other hand, are widely considered as the typical realisations of evaluation. In consequence, some of the observations she draws may need to be further tested with more empirical investigation, in particular investigation into the association between adjective complementation patterns and attitudinal meanings. Moreover, Bednarek (2009a: 180) argues that, in addition to attitudinal lexis, attitudinal target (i.e. whether the appraised entity is a person or a thing) is also a criterion for the classification of Attitude. This stimulates one to think whether the distinction between types of target can be supported by linguistic patterns, which, however, has been left unaddressed.

3.2.2.2 Hunston (2011: 119-150)

Hunston (2011: 119-150) has explored in depth the relationship between recurring patterns (or more generally, phraseology) and evaluative meanings. Her discussion is mainly related to two aspects: 1) the possibility of using grammar patterns as a diagnostic to differentiate types of attitudinal meanings, which will be discussed in this section, and 2) the feasibility of developing local grammars of evaluation with the help of grammar patterns, which will be reviewed below (see Section 3.3.3.4).

Apart from Martin and White (2005: 58-59) who have suggested that grammatical frames might be of use in distinguishing types of Attitude, Hunston also observes that some grammar patterns are frequently associated with one (or more) particular (sub)type of Attitude. The following examples which are taken from Hunston (2011: 129) are given to illustrate the association between patterns and types of attitudes (see Table 3.3 below).

Table 3.3(1): Adjective patterns indicating emotions

Patterns	Examples
ADJ <i>about</i>	<i>Ann's friends were less enthusiastic about her plans</i>
ADJ <i>in</i>	<i>He was utterly absorbed in his private game</i>
ADJ <i>with</i>	<i>I thought I was angry with them</i>

Table 3.3(2): Adjective patterns indicating qualities of human beings

Patterns	Examples
ADJ <i>against</i>	<i>He appears powerless against the corrupt politicians</i>
ADJ <i>as</i>	<i>We left New York feeling ... inadequate as parents</i>
ADJ <i>at</i>	<i>Her mother was clever at many things</i>

Table 3.3(3): Adjective patterns indicating qualities of things

Patterns	Examples
ADJ <i>to-inf.</i>	<i>Children's homes are expensive to run and difficult to staff</i>
ADJ <i>on</i>	<i>... blues and greens are easy on the eyes</i>
ADJ <i>to n</i>	<i>... insects which are beneficial to birds</i>

According to Hunston, the grouping of the above examples “is highly reminiscent of the three part division of resources for evaluative meaning proposed by Martin and White (2005)” (Hunston 2011: 130). This again seems to suggest that grammar patterns might be used as a diagnostic to differentiate types of Attitude. Unfortunately, this would not be possible, “because of the allusive quality of much evaluation; no ‘test’ can identify more than the most explicit or inscribed evaluation” (Hunston 2011: 130).

This argument is to a great extent consistent with Bednarek's (2009a) findings that though linguistic patterns can be used to make distinctions between assessments of opinion and emotion, they are only of limited use in distinguishing types of attitudinal meanings, i.e. Affect, Judgement and Appreciation.

What is more, it has been suggested that "a more delicate exploration of frames will help interrogate the sub-categorisation of **affect, judgement and appreciation**" (Martin & White 2005: 59). This raises another question, i.e. whether it is possible to use language patternings to make finer distinctions between the subcategories identified in AFFECT, JUDGEMENT and APPRECIATION. This question has not been addressed in Bednarek (2009a) but is briefly discussed in Hunston (2011). In short, Hunston analyses the pattern **ADJ that** to explore whether finer distinctions between the sub-types of Affect can be made, which again suggests that it may not be successful to use pattern differentiation to make finer distinctions (see Hunston 2011: 137-138).

However, it has to be noted that Hunston's (2011) discussion has focused on only one adjective complementation pattern (i.e. **ADJ that**) and the sub-types of Affect, which indicates that there is a need to examine more patterns and the subcategories proposed in other subtypes of Attitude (i.e. Judgement and Appreciation). Only until all these aspects have been explored would it be plausible and tenable to draw some general statements about the diagnostic value of grammar patterns.

To recapitulate, previous studies have shown that grammar patterns are only of some limited use in distinguishing types of Attitude. However, since previous studies have paid little attention to adjective complementation patterns which are otherwise generally considered as the typical realisations of evaluation, it is thus necessary and worthwhile to further explore the possibility of using adjective complementation patterns as a diagnostic to differentiate types of attitudinal meanings (see Section 6.2).

3.2.3 Grammar patterns as a heuristic and ATTITUDE

Though grammar patterns are only of limited use in distinguishing types of attitudinal meanings, grammar patterns may be a useful heuristic in the investigation of evaluative language. For example, Bednarek's (2009a) analysis of the pattern *I find it adj* shows that it is most frequently associated with Appreciation lexis, though it also occurs relatively frequently with Judgement lexis. Hunston (2011: 130-142) presents a more detailed exploration of the heuristic value of grammar patterns in the investigation of evaluative language. For instance, her analysis shows that the pattern **ADJ about** is

typically used to construe Affect (e.g. *angry about, happy about, pleased about*), the pattern **ADJ in** typically expresses Appreciation (e.g. *important, awash*) or Judgement (e.g. *careful, lucky*), but is fairly infrequently used to express Affect (Hunston 2011: 136-137).

More notably, taking patterns as a heuristic, Hunston (2011: 138-142) identifies two pairs of distinctions. The first distinction is made between performed evaluation and reported evaluation. She argues that the ‘*it*’ patterns and the ‘*there*’ patterns are typically used to express performed evaluation, i.e. cases where “it is the writer/speaker who is the source of the evaluation” (Hunston 2011: 139), and otherwise the evaluation is reported, i.e. cases where the source of evaluation is attributed to someone else. The second distinction is drawn between straightforward and multilayered evaluation, which is more complex. Simply put, Hunston observes that in some cases the evaluation is straightforward, i.e. the emotional reaction is directly assigned to the Emoter (who experiences the emotion, see Bednarek 2008a: 70), as in *People were anxious about the future*; meanwhile, she also notices that there are some cases in which the evaluation is multilayered, i.e. the emotional reaction is assigned to the subject of the clause, but a judgement about the subject is also made by the speaker/writer, as in *They’re fanatical about what they eat* (Hunston 2011: 140). That is, the emotion ‘*fanatical*’ is assigned to ‘*they*’, and a judgement is made about their behaviour of being ‘*fanatical*’.

Hunston further argues that “the two distinctions drawn above are important for the development of local grammars of evaluation” (Hunston 2011: 142). This is because local grammars use transparent functional labels to analyse instances associated with particular meaning areas (see Section 3.3 for more discussion about local grammar). Let us take *They’re fanatical about what they eat* as an example. A local grammar analysis of this instance needs to account for two different readings. It could be interpreted either as Affect or as Judgement, which need to be parsed using different local grammar elements. That is, when it is interpreted as Affect, it needs to be parsed using local grammar elements involved with Affect, as shown in Table 3.4(1) below; whereas when it is interpreted as Judgement, it needs to be parsed using local grammar elements involved with Judgement, as shown in Table 3.4(2) below.

Table 3.4(1): Parsing multilayered evaluation (using Bednarek’s (2008a) term)

Emoter		Emotion	Trigger
They	're	fanatical about	what they eat

Table 3.4(2): Parsing multilayered evaluation (using this study’s term)

Target		Judgement	Scope
They	're	fanatical about	what they eat

It is perhaps worth noting that though the concept of multilayered evaluation is insightful, it may make the practice of appraisal analysis more challenging and complex because this requires the analyst to infer every possible reading residing in instances characterised as multilayered evaluation. This would not be desirable (cf. Thompson 2014a). As a solution, the present study will provide an alternative way to deal with cases associated with or similar to multilayered evaluation. To be specific, drawing on evidence from both personality psychology and corpus investigation, this study argues that instances of multilayered evaluation can be characterised as Judgement resources. It will be shown that this alternative makes it relatively easier to characterise and classify attitudinal resources (see Chapter 4).

Back to the issue of patterns as a heuristic, it has to be pointed out that only Bednarek (2009a) and Hunston (2011) have briefly discussed this issue. In consequence, more investigation into this issue would be both desirable and worthwhile. The present study will thus further explore what can be revealed if grammar patterns are taken as a heuristic to investigate evaluative language (see Section 6.3).

3.3 Patterns, Appraisal and Local Grammars of Evaluation

This section discusses the possibility and feasibility of using grammar patterns and the Appraisal framework to develop local grammars of evaluation. It first introduces the concept of local grammar and then explains why Appraisal Theory and Pattern Grammar are suitable (as the theoretical underpinnings) for developing local grammars of evaluation, which is followed by a review of some previous studies.

3.3.1 Local grammar

Generally speaking, local grammars involve the mapping of meaning elements on to pattern/structural elements, and “[w]hen all the relevant patterns of all the relevant lexical items had been parsed in this way, this was to be called a local grammar” (Hunston 2003a: 348). Further, local grammars deal with one meaning only and “typically work with transparent category labels referring to functional categories that are characteristic for the area of language that is to be described” (Bednarek 2008a: 66).

So far, local grammars have been applied to the study of, for example, the language of definition (Barnbrook & Sinclair 1995; Barnbrook 2002), proper names (Traboulsi 2004), the language of evaluation (Hunston & Sinclair 2000; Hunston 2003a, 2011; Bednarek 2008a), cause and effect (Allen 2005), and to sentiment analysis (Bloom 2011). Functional terms such as *Definiens*, *Definiendum* were used in the local grammar of definition (Barnbrook 2002), and *Emoter*, *Emotion*, *Trigger* in the local grammar of Affect (Bednarek 2008a). In general, these studies have demonstrated that local grammar analyses help to describe specific meaning areas.

According to Hunston and Sinclair (2000), the necessity of developing local grammars can be simply yet strongly justified by its application in automatic information extraction and automatic parsing (cf. Mason 2004). Information extraction is a significant research area in natural language processing. However, since a parser based on general grammars cannot capture all information in open running texts, it is therefore well worth trying local grammars (Hunston & Sinclair 2000). It has been argued that, for sequences sharing aspects of semantic similarities, it is to some extent possible to map consistently functional elements on to formal elements (see Hunston 2011: 120). The possibility of this consistent mapping makes it promising to develop local grammars and the associated parser; and the parser developed on the basis of local grammar description might have the potential to enable ultimately the automatic information extraction and automatic parsing. This indicates that the construction of local grammars is of great significance. The concern, however, is that we do not know how successful the automatic parsing can be, because it is very challenging to capture all instances associated with one particular meaning area, and even if all instances have been captured, the specific parsing still depends on a great deal of specifications (see Section 8.3.2 for more discussion).

3.3.2 Local grammars of evaluation

This section addresses the question as to why Appraisal Theory and Pattern Grammar are useful for building local grammars of evaluation. It is argued that the taxonomic representation of attitudinal meaning in APPRAISAL makes it advantageous to be the theoretical underpinning of local grammars of evaluation, and that grammar patterns are a good starting point for developing local grammars because patterns are useful for identifying units of meaning.

3.3.2.1 Appraisal theory and local grammars of evaluation

It has been mentioned that the APPRAISAL model, developed within Systemic Functional Linguistics (Martin 2000; White 2002, 2004, 2011; Martin & Rose 2003; Martin & White 2005), is widely recognised as a successful and fine-grained framework currently available to account for evaluation. Since an overview of this model has already been given in Section 2.3, I will only reiterate some specific characteristics of this model that make it particularly suitable for being the theoretical underpinning for developing local grammars of evaluation.

Barnbrook (2002: 97-104) has illustrated that a taxonomic representation is required for the development of local grammars and correspondingly the parser. In his study, Barnbrook (2002) develops a local grammar of definition by using a taxonomy of structural variation of definition sentences. In the present study, it is quite easy to specify the structural variation, because the patterns in this study are confined to adjective complementation patterns and consequently the structural variation is relatively limited (see Section 8.3.2.2 for more detail). Meanwhile, apart from a taxonomy of structural variation, I would further argue that a taxonomy of meaning is desirable, if not a prerequisite, for developing local grammars of evaluation.

It has been explained that the APPRAISAL model provides a taxonomic representation of evaluative meanings. For example, the ATTITUDE system is trisected into AFFECT, JUDGEMENT and APPRECIATION, and each of these subsystems have their own subdivisions; for instance, the JUDGEMENT system in this study is subdivided into six meaning categories, i.e. Normality, Capacity, Tenacity, Veracity, Propriety and Emotivity (see Chapter 4 for more discussion about the refinement of the JUDGEMENT system). These meaning categories form a typical taxonomic representation.

This taxonomic representation of evaluative meanings in appraisal is crucial for the construction of local grammars of evaluation. The reasons are given below. On the one hand, the taxonomy helps the researcher to avoid coping with the evaluative language as a whole (which is much more complex a phenomenon). In other words, instead of developing *a* local grammar of evaluation, it may be more feasible to develop *a set of* local grammars of evaluation, i.e. local grammar of Affect (e.g. Bednarek 2008a), local grammar of Judgement, local grammar of Appreciation (cf. Hunston & Sinclair 2000: 100; Butler 2004: 158). In this sense, it can be argued that the more

delicate the taxonomy of one meaning area, the more feasible the construction of local grammars would be. On the other hand, the taxonomy of attitudinal meanings presented in the APPRAISAL model fulfils the condition (i.e. the taxonomic representation) that is required for the development of local grammars and the associated parser. Additionally, the taxonomic representation allows us to discuss the exact (sub)type of Attitude; for example, it allows us to specify *good* as realising Judgement: Capacity in *she was good at art* whereas realising Judgement: Propriety in *he is very good with the crew*. In short, it is this taxonomic representation of evaluative meanings proposed in the APPRAISAL model that makes APPRAISAL particularly suitable for being the theoretical framework for local grammars of evaluation (cf. Hunston unpublished manuscript).

3.3.2.2 Grammar patterns as a starting point for local grammars of evaluation

Previous studies have demonstrated that it is promising to take grammar patterns as the starting point for the construction of local grammars of evaluation (e.g. Hunston & Sinclair 2000; Hunston 2003a, 2011; Bednarek 2008a). This is partly because the *Grammar Pattern* series provide a complete list of patterns to look at, which makes an exhaustive examination of these structures possible. This is an advantage that none of the other phraseological approaches to language description has, as discussed in Section 1.2. More importantly, grammar patterns are useful in identifying meaning units. For example, Hunston (2003a) suggests that it is problematic to consider words alone when discussing evaluative language because their meanings are not fixed (cf. ‘words in isolation have meaning potential rather than meaning’ in Hanks 2013: 65). Instead, it would be better to consider the word-pattern combination because “the precise referent for evaluation is determined by the pattern used more than by the adjective used” (Hunston 2003a: 353). Hunston (2003a) therefore argues that word-pattern combination should be taken as the starting point to identify meaning units and to build local grammars. This point has been made particularly convincing in Hunston (2011: 150) where she asserts that it is desirable to take grammar patterns rather than word in isolation as the methodological departure for developing local grammars of evaluation (see Section 3.3.3.4 below for more discussion). What is more, it is easily accessible to perform queries of grammar patterns in part-of-speech tagged corpora (e.g. BNC), which further helps to identify those units associated with attitudinal meanings, as will be shown in Chapter 5. It is in these respects that it can be argued that grammar patterns

are a good starting point for developing local grammars of evaluation.

The upshot of the discussion above is that the appraisal taxonomy of attitudinal meanings and grammar patterns are useful for the construction of local grammars of evaluation, which will be made clearer in the following section.

3.3.3 A review of previous studies

Recently, there has been a growing interest in studying evaluative language from a local grammar perspective (e.g. Hunston & Sinclair 2000; Bednarek 2008a; Hunston 2003a, 2011). This section sketches these studies, aiming to further capture the gist of local grammars of evaluation.

3.3.3.1 Hunston and Sinclair (2000)

It is Hunston and Sinclair (2000) who first brought the concept of local grammar into the study of evaluative language. According to them, it is necessary to select ‘stretches of text’ which fit into a sub-language so as to perform local grammar analysis (Hunston & Sinclair 2000: 78). The method they adopt to identify these ‘stretches of text’ is to look at those linguistic patterns in which evaluative adjectives (and sometimes nouns) occur and whose primary function is to evaluate. The rationale behind this method is that the search program has to be able to recognise the adjectives expressing the evaluative meanings; however, since there has no complete list of evaluative adjectives, one possible way to identify such adjectives is thus to look at the patterns with which these adjectives occur (Hunston & Sinclair 2000: 83).

The patterns Hunston and Sinclair (2000) used are based on the *Grammar Pattern* series (Francis *et al* 1996, 1998). Six linguistic patterns were examined; examples of these linguistic patterns are given to explore whether language patterns can be used to identify evaluative expressions and to show how to parse evaluative clauses using local grammar elements (e.g. *Evaluative category*, *Thing evaluated*, *Evaluative response*). For the purpose of illustration, some examples from Hunston and Sinclair (2000) are given below (see Table 3.5).

It becomes clear that there are patterns which are typically used to express evaluative meanings; and accordingly, it is possible to identify (at least) some of those instances associated with evaluation by searching these patterns in corpora. In addition, Hunston and Sinclair’s (2000) analysis demonstrates that these instances can be parsed using a limited set of functional terms (e.g. *Evaluator*, *Thing evaluated*, *Evaluative*

category), which indicates that the automatic identification of elements realising particular semantic roles might be possible. Overall, the above discussion suggests that grammar patterns are useful for the identification of units of meaning.

Table 3.5: Parsing patterns associated with evaluation

Patterns	Examples						
Pattern 1	it + link verb + adjective group + that clause						
			<i>Evaluative category</i>	<i>Thing evaluated</i>			
	it	link verb	adjective group	non/finite clause			
	it	was	surprising	how many on that course has disabled children			
	it	was	wonderful	talking to you the other day			
Pattern 2	there + link verb + something/anything/nothing + adjective group + about/in + noun group / -ing clause						
			<i>Hinge</i>	<i>Evaluative category</i>	<i>Hinge</i>	<i>Thing evaluated</i>	
	there	link verb	<i>sth/ath/nth</i>	adjective group	<i>about / in</i>	noun-group / -ing clause	
	there	is	something	ironic	in	seeing the Dalai Lama	
	there	was	anything	romantic	about	trying to do a love	
Pattern 3	link verb + adjective group + to-infinitive clause						
	<i>Thing evaluated</i>		<i>Hinge</i>	<i>Evaluative category</i>	<i>Restriction on evaluation</i>		
	noun group		link verb	adjective group	to-infinitive clause		
	People		are	slow	to learn		
	This book		is	interesting	to read		
Pattern 4	link verb + adjective group + that clause						
	<i>Evaluator</i>	<i>Hinge</i>	<i>Evaluative response</i>		<i>Thing evaluated</i>		
	noun group	link verb	adjective group		that clause		
	I	'm	fairly certain		he is an American		
	Doctors	were	optimistic		that he would make a full recovery		
Pattern 5	pseudo-clefts						
	<i>Hinge</i>		<i>Evaluative category</i>	<i>Hinge</i>	<i>Thing evaluated</i>		
	what + link verb		adjective group	link verb	clause or noun group		
	what's		interesting	is	the tone of the statement		
	what is		important	is	how humans react to it		
Pattern 6	patterns with general nouns						
	<i>Evaluative category</i>			<i>Hinge</i>	<i>Thing evaluated</i>		
	adjective + general noun			link verb	clause or noun group		
	The important point			is	to involve them in the decision		
	... the easy thing			is	to avoid looking at reality		

What is more, Hunston and Sinclair (2000) have also discussed, though very briefly, adjective complementation patterns, i.e. adjectives followed by a prepositional phrase or non/finite clause. They argue that many adjectives, in particular those evaluative adjectives, are often or always used in complementation patterns. Based on the analysis, they further observe that a distinction needs to be made between adjectives indicating feelings and those indicating judgements (cf. the distinction between 'emotion' and

‘opinion’ in appraisal); correspondingly, *Evaluative response* (feeling) and *Evaluative category* (judgement) are used to analyse these adjectives respectively. This observation is important, because instances of different types of evaluation need to be parsed differently in a local grammar analysis (see Table 3.6).

Table 3.6(1): Parsing instances indicating ‘feeling’

<i>Evaluator</i>	<i>Hinge</i>	<i>Evaluative response</i>	<i>Thing evaluated</i>
noun group	link verb	adjective group	prepositional phrase
The people	are	<i>impatient</i>	for change
The 11-year-olds	feel	<i>guilty</i>	about the homeless

Table 3.6(2): Parsing instances indicating ‘judgement’

<i>Thing evaluated</i>	<i>Hinge</i>	<i>Evaluative category</i>	<i>Restriction on evaluation</i>
noun group	link verb	adjective group	prepositional phrase
The pitch	is	<i>perfect</i>	for cricket
Davies	was	<i>insulting</i>	about the play

It is fair to say that Hunston and Sinclair (2000) has proposed a new approach, i.e. the local grammar approach, to study evaluative language, which has been shown to be useful and influential. Their study has offered some valuable theoretical and methodological insights (e.g. how to identify evaluative clauses) into the subsequent investigation into local grammars of evaluation; that is, their study shows that a systematic and coherent description of evaluative language would be possible if those structures in which evaluative words occur and whose primary function is to evaluate are taken as the starting point. Although the exact proportion of evaluative instances that can be identified using this method is unclear, it has been demonstrated that it is possible to identify a considerable number of those evaluative instances which co-occur with these patterns. In addition, it has been shown that these instances can be analysed using a limited set of transparent functional terms, which further indicates that it may be possible to develop local grammars of evaluation.

Though indeed as important and insightful as Hunston and Sinclair (2000) is, there are some aspects which may have been oversimplified or overlooked (see also Hunston 2011: 143). Hunston and Sinclair make a distinction between adjectives indicating a feeling and those indicating a judgement, which is reasonable and necessary. However, it also appears to be necessary to make a distinction between types of entities that are being evaluated, as suggested in Bednarek (2009a). For example, it is noticed in Table

3.6(2) above that both ‘The pitch’ and ‘Davies’ are parsed as *Thing evaluated*, but they are different types of attitudinal target. To be specific, ‘The pitch’ indicates a *thing target* whereas ‘Davies’ indicates a *human target*. This clearly suggests that the local grammar analysis would need to use different functional terms to parse these instances so that the instances are analysed in terms that are directly related to their discourse function (Hunston 2011: 142). Moreover, though Hunston and Sinclair point out that “it is evaluative adjectives that have complementation patterns” (Hunston & Sinclair 2000: 95-96), they have only paid limited attention to adjective complementation patterns. It will be shown in the present study that the aspects discussed above need to be more carefully considered when developing local grammars of evaluation.

3.3.3.2 Hunston (2003a)

Hunston (2003a) makes an initial attempt to build a local grammar of Affect (see Section 2.3.2.1 for Affect). Similar to Hunston and Sinclair (2000), Hunston (2003a) also takes grammar patterns, more specifically, adjective complementation patterns (e.g. **ADJ about**, **ADJ at**, **ADJ for**), as the starting point to identify affective expressions. The functional terms Hunston (2003a) uses include *Experiencer*, *Emotion*, *Cause*, *Target*. Although most of these terms are quite self-explanatory, it would be better if an explanation has been given of *Cause* and *Target* (cf. Bednarek 2008a: 69).

Examples from Hunston (2003a) are given below to demonstrate how affective instances can be parsed using local grammar elements (see Table 3.7 below).

Table 3.7(1): Parsing patterns associated with Affect

Element	Experiencer		Emotion	Cause/Target
Pattern	noun group	link verb	adjective group	noun group
ADJ about n	she	is	... nervous about	her future
ADJ as to wh	I	... was	worried as to	how my death would affect them
ADJ at n	Paul	is	angry at	the way he has been treated
ADJ by n	the British	are	exasperated at	rising crime
ADJ for n	I	felt	guilty for	disturbing his solitude
ADJ in n	he	was	happy in	his Apache life
ADJ of n	we	are	proud of	our achievements
ADJ on n	I	'm	not big on	religion
ADJ over n	an artist who	is	enthusiastic over	talent in others
ADJ to n	General Haig	was	wedded to	his profession
ADJ towards n	I	've felt	affectionate towards	Karen because ...
ADJ with n	I	was	angry with	them

Table 3.7(2): Parsing patterns associated with Affect

Element	Experiencer		Emotion	Action
Pattern	noun group	link verb	adjective group	clause
ADJ to-inf.	You	've got to be	very thankful to	win once
ADJ -ing	I	felt	good	seeing Gideon ... again

Table 3.7(3): Parsing patterns associated with Affect

Element	Experiencer		Emotion	Third party
Pattern	noun group	link verb	adjective group	noun group
ADJ for	I	am	happy for	him

Table 3.7(4): Parsing patterns associated with Affect

Element	Experiencer		Emotion	Phenomenon
Pattern	noun group	link verb	adjective group	clause
ADJ to-inf.	They	were	puzzled to	find the kitchen door

Clearly, Hunston's (2003a) analysis exemplifies that adjective complementation patterns are indeed a good starting point for developing local grammars of evaluation. Furthermore, her analysis shows that it is possible to describe systematically and coherently evaluative language if those structures (e.g. adjective complementation patterns) which are frequently associated with evaluation are taken as the starting point (see also Hunston & Sinclair 2000). This systematic and coherent description of evaluative clauses further facilitates the establishment of local grammars of evaluation.

Needless to say, credit should be given to Hunston (2003a) for making the initial attempt to develop a local grammar of Affect; however, it is Bednarek (2008a) who has accomplished this arduous undertaking, as will be discussed below.

3.3.3.3 Bednarek (2008a)

Bednarek (2008a) has brought the local grammar of Affect fairly far. In fact, Bednarek (2008a) has been considered as the most successful study of evaluation from a local grammar perspective (Thompson 2010; Hunston 2011: 149). Generally speaking, she has presented an in-depth analysis of emotion terms in four registers, i.e. conversation, news reportage, fiction and academic discourse. Her analysis focuses on 15 emotion terms which are selected on the grounds that these terms occur relatively frequently in all four registers (see Bednarek 2008a: 65). The 15 emotion terms Bednarek analysed include nine adjectives, three nouns and three verbs, which are listed in Table 3.8 below.

Table 3.8: Emotion terms analysed in Bednarek (2008a)

	Positive	Negative	Neutral
Verbs	<i>admire</i>	<i>hate</i>	<i>surprise</i>
Nouns	<i>affection</i>	<i>hate</i>	<i>surprise</i>
Adjectives	<i>delighted, enthusiastic, interested, pleased</i>	<i>anxious, disappointed, frightened</i>	<i>surprised, willing</i>

Though the analysis of 15 emotion terms seems to be quite limited, Bednarek’s analysis is complemented by other studies where necessary, e.g. Francis *et al* (1996, 1998) and Hunston (2003a), which to some extent guarantees the validity of her observations. In addition, the fact that there are more adjectives occurring relatively frequently in the four registers supports that it is adjectives that are most frequently used to express evaluative meanings, as has been pointed out in Martin and White (2005: 58) and Hunston (2011: 129). This further indicates the importance of adjective patterns in the study of evaluative language.

Drawing on insights from both local grammars and FrameNet (<https://framenet.icsi.berkeley.edu/fndrupal/about>), Bednarek (2008a) proposes a limited set of local grammar terms for the subsequent analysis and explains them succinctly (see Table 3.9 below).

Table 3.9: Local grammar elements for Affect (adapted from Bednarek 2008a: 70-71)

Elements	Explanation	Example
Emoter	who experiences an emotion	Paul is very angry at the way he has been treated.
Emotion	the feelings involved	Paul is very angry at the way he has been treated.
Trigger	the causes of an emotion	Paul is very angry at the way he has been treated .
Expressor	indicator of an emotion, e.g. body part, gesture	genuine surprise in his voice .
Action	physiological activities	He squealed in ... surprise.
Empathy target	the one with whom the emotion is shared	I’m happy for him .

Some examples Bednarek (2008a) uses are given below to show the local grammar of Affect she developed.

Verb Patterns

Table 3.10(1): Parsing verb patterns

Element Pattern	Emoter		Emotion
	noun group	link verb	verb group
V	I	don’t	mind

Table 3.10(2): Parsing verb patterns

Element Pattern	Emoter	Emotion	Trigger	Trigger
	noun group	verb group	noun group	prepositional phrase / clause
V n prep. n	I	hated	Mandeville	for his arrogance
V n because	I	admire	her	because she is an actress who can also sing

Table 3.10(3): Parsing verb patterns

Element Pattern	Emoter	Emotion	Trigger
	noun group	verb group	noun group / clause
V n	He	hates	days when he can't straight into his workshop
V prep. n	I	yearned for	something new
	I	really sympathize with	the two officers
V n prep. n	Lady Dawkings	... surprised herself by	her reaction
	the ... campaigner	pride himself on	blunt, outspoken views
V that	I	hate	that I cause her so much pain
V n fin. cl.	I	hate it	when people talk about me rather than to me
V n to-inf.	He	wanted her	to go and buy some ...
V to-inf.	he	hated	to disappoint her

Table 3.10(4): Parsing verb patterns

Element Pattern	Trigger	Emotion	Emoter	Trigger
	noun group	verb group	noun group	prepositional phrase
V n prep. n	determined but polite efforts were made	to interest	her	in the purchase of tomatoes
	the compact circuit	... has surprised	owners Ladbrokes	with its robust evening trade

Table 3.10(5): Parsing verb patterns

Element Pattern	Trigger	Emotion	Emoter
	noun group	verb group	noun group
V n	these stories	surprised and moved	me

Adjective Patterns

Table 3.11(1): Parsing adjective patterns

Element Pattern	Emotion	Emoter
	verb group	noun group
ADJ n	a frightened	man ...

Table 3.11(2): Parsing adjective patterns

Element Pattern		Emoter	Emotion	Trigger	
<i>it v n ADJ fin. cl.</i>	<i>it</i>	link verb	noun group	adjective group	clause
<i>it v n ADJ non-fin. cl.</i>	<i>it</i>	makes	me	sick that	anybody should doubt my commitment
	<i>it</i>	makes	me	sad to	see all the good work we have done devalued

Table 3.11(3): Parsing adjective patterns

Element Pattern	Emoter		Emotion	Trigger
	noun group	link verb	adjective group	noun group / clause
ADJ prep. n	I	was	... disappointed in	anyone
	he	's not	very keen on	the price we want to pay
ADJ fin. cl.	he	was	angry that	she had spoken to people about ...
	Cathy	was	surprised how	ill she looked
ADJ non-fin. cl.	you	would be	surprised to	find an STE actually on sale
	she	had been	happy for	working for Graham

Table 3.11(4): Parsing adjective patterns

Element Pattern	Emoter		Emotion	Empathy target
	noun group	link verb	adjective group	noun group
ADJ prep. n	I	'm	happy for	him
	I	'm	very disappointed for	Jimmy

Noun Patterns

Table 3.12(1): Parsing noun patterns

Element Pattern	Emoter's	Emotion
	poss.	noun group
adj. N	his	childlike affection

Table 3.12(2): Parsing noun patterns

Element Pattern	Emoter		Emotion	Trigger
	noun group	link verb	noun group	noun group / clause
N prep. n	they	... express	affection towards	Pamela
		showing	... affection to	members of the opposite sex
N fin. cl.			astonishment that	so many hotels borders on Fawlty Towers
N non- fin. cl.			the initial wave of guilty surprise	finding that the beautiful girl ... had been Roman's young sister

Table 3.12(3): Parsing noun patterns

Element Pattern	Emoter	Action	Emotion	Trigger
	noun group	verb group	noun group	noun group / clause
v prep. N that	she	realised	with astonishment	that he was actually pleading

Table 3.12(4): Parsing noun patterns

Element Pattern	Expressor / Action		Emotion
	noun group	preposition	noun group
n prep. N	an expression	of	absolute astonishment
	frozen	with	fear

Table 3.12(5): Parsing noun patterns

Element Pattern	Emotion		Expressor
	noun group	preposition	noun group
N prep. n	genuine surprise	in	his voice
	a lot of hate	in	their eyes

The description above outlines the local grammar of Affect developed by Bednarek (2008a). As mentioned above, it has been said that Bednarek's (2008a) study is successful and useful. In short, her study is successful because it is 1) *comprehensive* in that she presents an in-depth analysis of patterns associated with the emotion terms of the major word-classes (i.e. verbs, nouns and adjectives), 2) *coherent* in that instances are parsed consistently using a limited number of local grammar terms, and 3) *transparent* in that these local grammar elements are quite simple and self-explanatory and explicitly reflect the function of the corresponding pattern elements.

Notwithstanding the value of Bednarek's (2008) study, there are some minor issues which might need to be reconsidered. For example, we may query few of her analysis. It does not make much sense to double-code the Trigger in instances such as *I hated Mandeville for his arrogance* (see Table 3.10(2) above); instead, it may be reasonable to code the whole sequence *Mandeville for his arrogance* as Trigger, because local grammar analysis is supposed to be simple and straightforward. Secondly, Bednarek (2008a) has not looked into the relation between patterns and the sub-types of Affect. This is probably because she intends to modify the classification of Affect (see Chapter 5 in Bednarek 2008a), which is reasonable; however, this may result in a less systematic investigation into the association between patterns and attitudinal meanings. Additionally, Bednarek has not made it clear whether (and how) the local grammar of

Affect can be used to assist the automatic recognition and analysis of affective expressions.

Nevertheless, we can learn some lessons from Bednarek's (2008a) study. For example, it is arguable that Bednarek's success greatly depends on restricting her discussion to one type of Attitude, i.e. Affect. This restriction facilitates local grammar analysis, because local grammars describe one meaning only (Hunston 2002a: 178; Butler 2004: 158). In addition, it might be said that Bednarek's success also depends on taking language patterns as the starting point, though slightly different from what has been suggested in Hunston (2003a). In other words, Bednarek (2008a) is a good example which exemplifies the usefulness of APPRAISAL and grammar patterns in developing local grammars of evaluation.

Like Bednarek (2008a), the present study, focusing particularly on the ethical evaluation of human character and behaviour (i.e. Judgement in terms of Appraisal) and starting with the adjective complementation patterns, attempts to develop a local grammar of Judgement. The ultimate aim is to contribute to a more complete and coherent description of evaluative language from a local grammar perspective. Unlike Bednarek (2008a), however, though the patterns in this study are confined to adjective complementation patterns, this is compensated for by a more detailed exploration of the association between patterns and the sub-types of Judgement. It will be shown that a more delicate analysis of pattern and attitudinal subcategories can tell us much more about appraisal, in particular about how local grammars of evaluation can be developed and be used to facilitate the automation of appraisal analysis (see Chapters 7 and 8).

3.3.3.4 Hunston (2011)

Hunston (2011) argues convincingly that it is desirable to take grammar patterns as the starting point for developing local grammars of evaluation. This is because grammar patterns are useful in identifying meaningful units associated with evaluation and in specifying the exact type of evaluation, as discussed above (see Section 3.3.2.2). For example, the following are some examples occurring with the pattern **ADJ to-inf**.

- 3.1 Horses are *pretty to* look at.
- 3.2 The printing is *easy to* read.
- 3.3 She was very *angry to* find him with the circus.
- 3.4 A spokesman was *reluctant to* reveal the actual figures.
- 3.5 People are *slow to* learn.
- 3.6 He was *lucky to* escape with his life. (examples from Hunston 2011: 148-149)

In terms of Appraisal, examples 3.1 and 3.2 are associated with Appreciation, examples 3.3 and 3.4 with Affect, examples 3.5 and 3.6 with Judgement. On the one hand, this shows that patterns are useful in identifying evaluative instances. On the other hand, it shows that the same pattern may be associated with different types of evaluation, which further indicates that it is “unlikely that any pattern would have a one-to-one mapping on to local grammar elements” (Hunston 2011: 149). This means that instances of one pattern may need to be parsed differently from a local grammar perspective (see Table 3.13 below).

Table 3.13(1): Parsing instances associated with Appreciation (using Hunston’s (2011) term)

Entity		Evaluation	Limitier/Specification
Horses	are	pretty	to look at
The printing	is	easy	to read

Table 3.13(2): Parsing instances associated with Affect (using Bednarek’s (2008a) term)

Emoter		Emotion	Trigger
She	was	very angry	to find him still with the circus
A spokesman	was	reluctant	to reveal the actual figures

Table 3.13(3): Parsing instances associated with Judgement (using this study’s term)

Target		Judgement	Scope
People	are	slow	to learn
He	was	lucky	to escape his life

Clearly, the analysis above highlights that the taxonomy of attitudinal meanings proposed in the APPRAISAL model is crucial for the establishment of local grammars of evaluation. At the same time, it becomes evident that “pattern alone does not reliably identify functional roles” (Hunston 2011: 150) and that the functional roles are jointly determined by the word and the pattern. This suggests that the specific parsing of an instance depends greatly on the specification of the (adjective-) word-pattern combination, which makes it a challenging task to develop local grammars of evaluation. Nevertheless, the specification of word-pattern combination also allows us to discuss the exact (sub)type of attitudinal meanings that is realised; for example, *slow* in **ADJ to-inf.** (e.g. *People are slow to learn*) informs us that a judgement is made about a person’s ability, but *slow* in **ADJ n** (e.g. *the slow food movement*) conveys a different

meaning, i.e. Appreciation in terms of Appraisal (see Martin & White 2005: 52). The point, then, is that it is desirable to take “pattern rather than word as the starting point for a local grammar” (Hunston 2011: 150).

Summing up, the discussion above has reviewed previous studies on evaluative language conducted from a local grammar perspective, which should have made clear that Appraisal Theory and Pattern Grammar are useful for developing local grammars of evaluation.

3.4 About the Current Study

Having discussed the theoretical frameworks and those relevant studies, I would like to recapitulate what the current study is going to do (see also Chapter 1). In short, the present study explores further the relationship between language patterns and Attitude, focusing specifically on adjective complementation patterns and one particular type of Attitude, i.e. Judgement. It will be shown that the examination of adjective-in-pattern exemplars (and evidence in personality psychology) requires that the JUDGEMENT system be extended so that items construing attitudes towards emotional types of personality traits can be covered (Chapter 4). It will be noted that adjective complementation patterns could be of some use in distinguishing types of attitudinal meanings and are a useful heuristic in investigating appraisal resources (Chapters 5 and 6). It will then be demonstrated that grammar patterns are indeed a promising starting point for building local grammars of evaluation, which is exemplified by the local grammar of Judgement developed in the present study (Chapter 7). Lastly, it will be argued that much attention needs to be paid to the local grammar analysis of some special cases, and that the local grammar of Judgement (or local grammars of evaluation) is of theoretical significance in that it provides an alternative way to model the framework of attitudinal meanings and is of practical significance in that it offers some insights into the automation of appraisal analysis (Chapter 8).

3.5 Summary

This chapter has explored the connections between grammar patterns and evaluative language. It has been pointed out that the value of grammar patterns in the study of evaluation is mainly related to two aspects. The first aspect is that grammar patterns could be of some use in distinguishing types of Attitude (i.e. Affect, Judgement and Appreciation) and that grammar patterns are a useful heuristic to investigate evaluative

language. The second one is that grammar patterns are a good starting point for the establishment of local grammars of evaluation, as has been shown in previous studies. However, the review of previous studies incorporating grammar patterns into appraisal research suggests that, while adjective complementation patterns are generally considered as the prototypical realisations of evaluative meanings, previous studies have only paid limited attention to this particular type of grammar pattern. The present study will thus explore systematically and extensively the association between adjective complementation patterns and attitudinal meanings, paying particular attention to one specific type of Attitude, i.e. Judgement.

CHAPTER 4 REFINING JUDGEMENT: TYPOLOGICAL AND TOPOLOGICAL PERSPECTIVES

4.1. Introduction

Martin and White (2005: 46) have suggested that “our maps of feeling (for **affect**, **judgement** and **appreciation**) have to be treated at this stage as hypotheses about the organisation of the relevant meanings – offered [...] as a reference point for those with alternative classification”. Responding to this suggestion, researchers (e.g. Bednarek 2008a: 154-169; Thompson 2014a: 53-56) have attempted to refine the mapping of AFFECT in the ATTITUDE system². The refinement, though it is primarily concerned with AFFECT, inevitably leads to the rethinking of the mapping of other ATTITUDE subsystems, in particular the JUDGEMENT system; this is because both AFFECT and JUDGEMENT are concerned with evaluative meanings associated with human beings, i.e. either the construal of emotion or the ethical evaluation of one’s behaviour and/or character. However, the question as to whether (and how) JUDGEMENT should be refined has not yet been adequately addressed³.

This chapter thus aims to seek answer to this question. It will be argued that JUDGEMENT should be extended to cover those resources (e.g. *confident of*, *complacent in*) which construe attitudes towards “emotional types of personality” (Johnson-Laird & Oatley 1989: 97). Supportive evidence for this argument will be drawn from both personality psychology and corpus analysis (cf. Bednarek 2009b; Butler 2013). Emotivity – attitudes construed towards emotional types of personality traits, will be tentatively proposed as a new sub-type of Judgement.

The refinement of JUDGEMENT will be discussed from both typological and topological perspectives. Typologically, it will be argued that the establishment of Emotivity as a new sub-type of Judgement is necessary; and topologically, it will be noted that the establishment of Emotivity contributes to a more complete and coherent description of attitudinal resources and that a topological description of attitudinal meanings complements well the typological one.

² See, for example, Hommerberg (2011), S. Lee (2015) and Hommerberg and Don (in press) for the refinement on APPRECIATION.

³ Ngo and Unsworth (2015) has proposed a more delicate classification of Normality (into Fortune, Reputation and Behaviour) and Capacity (into Mental, Material and Social Capacity) though.

In the following, I will first introduce systemic typology and topology (Section 4.2); and I will survey and summarise previous studies which have attempted to refine AFFECT, aiming to contextualise the problem, i.e. the necessity to refine JUDGEMENT (Section 4.3). The focus will then be put on refining the JUDGEMENT system from a typological perspective (Section 4.4). Bearing in mind the complementarity between typology and topology, I will further discuss attitudinal meanings from a topological perspective with respect to the refined JUDGEMENT system (Section 4.5).

4.2 Systemic Typology and Topology

There has been a long tradition of language description in SFL from both typological and topological perspectives (e.g. Martin & Matthiessen 1991; Halliday 1998; Lemke 1999a; Rijkhoff 2002; Caffarel, Martin & Matthiessen 2004; Halliday & Matthiessen 2004, 2014; Bednarek 2007b; Wang & Xu 2013). Before introducing systemic typology and topology respectively, it is worth noting that they both draw on the concept of *agnation*. In SFL, agnation refers to the “[p]roperty of the systemic (paradigmatic) axis of organization: relatedness among paradigmatic options, represented as terms in the systems of a system network” and “[r]elated terms are said to be agnate with one another” (Matthiessen *et al* 2010: 49). Simply put, agnation is the systemic relationship between distinct but related terms or categories (Halliday & Matthiessen 2004: 31; Matthiessen *et al* 2010: 49-50).

We can now turn to the concepts of systemic typology and topology. According to Matthiessen *et al* (2010: 232), typology in SFL refers to the taxonomic representation of agnation in terms of discrete categories with respect to a particular set of criteria. It has been argued that typology is useful for theoretical descriptions of language in use (e.g. Polinsky & Kluender 2007). This has been largely exemplified by the use of system networks in SFL, such as the MOOD system and the TRANSITIVITY system. Topology in SFL, on the other hand, is concerned with the representation of “agnation – of relatedness in paradigmatic organization” (Matthiessen *et al* 2010: 230). In other words, topology deals with the degree of resemblance between discrete categories. Topology, like typology, is also noticeable in systemic functional descriptions; for example, Martin and Matthiessen (1991) discuss the overlapping between process types in the TRANSITIVITY system (cf. Halliday & Matthiessen 2004: 168-280).

In short, the notion of typology is related to the categorical distinctions between qualitatively different and discrete categories, which are typically expressed as taxonomies of system network; by contrast, topology is concerned with scalar distinctions between quantitatively different gradients (Bednarek 2007b: 109). That is to say, typological description typically represents agnates using system networks of discrete categories, and topological description typically represents agnates in terms of degree of similarities between those categories.

It has been suggested that typology and topology are complementary perspectives in describing agnation or paradigmatic relations (e.g. Lemke 1999a; Matthiessen *et al* 2010: 234). The complementarity between typological and topological descriptions is also noticeable in the APPRAISAL model. The APPRAISAL model is primarily represented as typological system networks (Bednarek 2007b; Zienkowski 2011: 5; Almutairi 2013), e.g. the ATTITUDE system, the ENGAGEMENT system and the GRADUATION system. In the meantime, appraisal resources have also been accounted for from a topological perspective. For example, Martin (2000: 165) offers a topological interpretation of the appraisal resources, and Bednarek (2007b) further discusses how these systems interact with each other and argues the adequacy of describing appraisal resources from both typological and topological perspectives.

Moreover, it is perhaps worth adding that typology and topology also facilitate the description of each (sub)system in the APPRAISAL model. The ATTITUDE system, for example, is typologically sub-divided into three discrete subsystems: the AFFECT, JUDGEMENT and APPRECIATION system. At the same time, from a topological perspective, Martin and White (2005: 58-61) also argue that there are fuzzy borderlines between these subsystems (cf. Bednarek 2007b). Further, attitudinal meanings can be expressed in a range of ways, which are generally characterised as inscribed and invoked evaluation. The fact that inscribed evaluation and invoked evaluation form a cline of the realisation of evaluation again shows that APPRAISAL features both typological and topological descriptions (see also Martin & White 2005: 68; Martin 2013; Almutairi 2013; Thompson 2014a).

The upshot of the above discussion is that it is necessary and useful to describe appraisal resources from both typological and topological perspectives. Typological and topological descriptions are complementary; together they can contribute to a more complete and coherent description of attitudinal resources. In the following sections, I will attempt to refine the original JUDGEMENT system from a typological perspective

and further address the adequacy of typology and topology in describing and characterising attitudinal resources.

4.3 Contextualising the Problem

The purpose of this section is to contextualise the problem, i.e. the necessity to refine the JUDGEMENT system. Some of the previous studies will be discussed (e.g. Bednarek 2008a: 154-169; Hunston 2011: 140-142; Thompson 2014a: 53-56). It will be argued that the current JUDGEMENT system cannot deal comprehensively with Judgement resources and that the original system should thus be refined accordingly.

4.3.1 Modification on AFFECT (Bednarek 2008a: 152-172)

As discussed in Section 2.3.2.1, AFFECT is modelled as a semantic system for the construal of emotions, and is divided into three sub-categories: Un/happiness, In/security and Dis/satisfaction (Martin & White 2005: 45-52). Though this can be considered as a very fine-grained framework currently available for analysing affective meanings, the AFFECT system has been revised in Bednarek (2008a) where a modified AFFECT system is proposed on the basis of corpus observation. In general, Bednarek (2008a: 152-172) suggests that Dis/inclination and Surprise should be considered as separate sub-types of Affect, i.e. being in parallel with Un/happiness, Dis/satisfaction and In/security, and argues that ir/realis distinction applies to all types of Affect. Given the space constraints, I will not go into the detail of these modifications (but see Thompson (2010: 401) for a very good summary).

Based on her discussion of the AFFECT system, Bednarek (2008a: 169) outlines the differences between Martin and White's (2005: 45-52) version of AFFECT and the modified one, which is presented below (see Table 4.1).

It has been noted that, although Bednarek (2008a) has only made a few alterations of the original model of AFFECT, "it looks as though her revised categories will be easier to apply" (Thompson 2010: 402). Being fully in agreement with this evaluation, what attracts my attention, however, is that Confidence is not considered as an independent subcategory of In/security, as shown in Table 4.1. Bednarek's (2008a: 161) solution is to subsume Confidence "under the more general (technical) term *quiet*, having to do with emotional calm".

Table 4.1: Comparing the two versions of AFFECT (adapted from Bednarek 2008a: 169, emphasis mine)

Martin & White (2005)				Bednarek (2008a)			
Un/happiness				Un/happiness			
Happiness		Unhappiness		Happiness		Unhappiness	
<i>cheer</i>	<i>affection</i>	<i>misery</i>	<i>antipathy</i>	<i>cheer</i>	<i>affection</i>	<i>misery</i>	<i>antipathy</i>
Dis/satisfaction				Dis/satisfaction			
Satisfaction		Dissatisfaction		Satisfaction		Dissatisfaction	
<i>interest</i>	<i>pleasure</i>	<i>ennui</i>	<i>displeasure</i>	<i>interest</i>	<i>pleasure</i>	<i>ennui</i>	<i>displeasure</i>
In/security				In/security			
Security		Insecurity		Security		Insecurity	
<i>confident</i>	<i>trust</i>	<i>disquiet</i>	<i>surprise</i>	<i>quiet</i>	<i>trust</i>	<i>disquiet</i>	<i>distrust</i>
Dis/inclination				Dis/inclination			
Inclination		Disinclination		Inclination		Disinclination	
<i>desire</i>		<i>fear</i>		<i>desire</i>		<i>non-desire</i>	
				Surprise			

Bednarek’s suggestion might to some extent be useful for analysing affective meanings; however, one question which remains to be addressed is that items realising Confidence and the meanings alike such as *confident* and *complacent* can also be used to construe personality traits which are related to emotional states, but where should such lexical resources be placed in the ATTITUDE system. In other words, Bednarek’s modification actually raises a more general issue for appraisal, that is, how items construing attitude towards ‘emotional types of personality traits’ (Johnson-Laird & Oatley 1989) can be analysed in terms of Appraisal. It needs to be pointed out that Bednarek (2008a) has not further discussed this question. In fact, there seems to be no study which has yet attempted to specifically address this question. Nevertheless, the discussion made in some studies (e.g. Hunston 2011: 140-142; Thompson 2014a: 53-56) offers some insights into this issue, which are sketched below.

4.3.2 Multilayered evaluation (Hunston 2011: 140-142)

Hunston’s (2011: 140-142) discussion of multilayered evaluation is to some extent helpful for addressing the question raised above. Based on the analysis of the pattern **ADJ about**, Hunston notes that “whereas evaluation in some instances appears to be straightforward, in other cases it is multilayered” (Hunston 2011: 140). She thus makes a distinction between straightforward and multilayered evaluation (also see Section 3.3.3.4). For example:

- 4.1 Everybody is *happy about* Cindy and Jerry finally getting married.
- 4.2 People were *anxious about* the future.
- 4.3 Most people are *curious about* a murderer.
- 4.4 They're *fanatical about* what they eat.
- 4.5 He would sit in his chair . . . getting *grumpy about* the temperature of the milk on his cornflakes.
- 4.6 Americans have become *complacent about* immunisation. (Hunston 2011: 140)

According to Hunston, examples 4.1 – 4.3 are reported Affect, in which the emotional reactions are straightforwardly attributed to the Emoter (i.e. the person who experiences the emotion, see Bednarek 2008a: 70); whereas in examples 4.4 – 4.6 “a reaction is attributed but is also judged as excessive or inappropriate (*fanatical* – ‘too concerned’; *grumpy* – ‘unreasonably displeased’; *complacent* – ‘too relaxed’)” (Hunston 2011: 140). Accordingly, examples 4.4 – 4.6 should be characterised as multilayered evaluation, i.e. cases where an emotional reaction is attributed to the Emoter (Affect) and, at the same time, a judgement of the Emoter is also made (Judgement). In example 4.5, for instance, the emotional reaction *fanatical* is attributed to ‘they’, but a judgement about their character of ‘being fanatical’ is also made.

As noted in Section 3.2.3, although this is useful for decoding the different readings residing in one instance, the notion of multilayered evaluation may make the practice of appraisal analysis more challenging and complex, which is not desirable (cf. Thompson 2014a). Besides, the question as to how these instances can be coded in terms of Affect and Judgement respectively is still left unaddressed. For example, *complacent* may be coded as Affect: satisfaction: pleasure, but how can it be coded in terms of Judgement?

This appears to indicate that the current JUDGEMENT system may not be able to deal effectively with Judgement resources. For the purpose of illustration, some concordance lines from the CoB are given below.

1	A0P 1317	he was	<i>obsessive about</i>	his poetry and ...
2	A68 2233	Ramsey was ...	<i>shy about</i>	meeting the upper class ...
3	FTW 688	Nizan was	<i>optimistic about</i>	the outcome
4	A7H 622	he grew more	<i>confident about</i>	the area he had targeted ...
5	HRF 1906	he was ... very	<i>diffident about</i>	working with ‘classical’ actors

These concordance lines are taken from those instantiating the pattern **ADJ about**. It is plausible to say that these lexical items construe meanings which are more or less related to emotion. However, this does not mean that they can be uncontroversially classified as Affect, because a judgement about each participant has also been made

simultaneously, as discussed above. In fact, it is arguable that these items can be justifiably classified as Judgement resources. The reason is given below.

From a local grammar perspective (see Section 3.3), instances like these cannot be plausibly parsed using the local grammar pattern which is typical of Affect, i.e. *Emoter + Emotion + Trigger* (see Bednarek 2008a: 72-94). On the contrary, these instances can be more plausibly parsed using the local grammar pattern associated with Judgement: *Target + Hinge + Judgement + Scope* (more detail about local grammar patterns of Judgement will be given in Chapter 7). This is because the noun phrases (e.g. *his poetry*, *the outcome*) complementing the pattern appear to be functioning as limiting the Scope of a particular judgement rather than functioning as the Trigger for specific emotional reactions. In other words, it does not seem to be plausible to argue that the feeling *confident* is triggered by *the area he had targeted*; but it is more plausible to interpret *the area he had targeted* as indicating the scope within which he is confident. This could be illustrated more clearly with another attested example from the CoB.

4.7 He was then still slightly *shy in company*, though sharp and *confident in other areas*.
(APO 253)

Apparently, noun phrases complementing *shy* and *confident* do not seem to function as the Trigger, that is, it is implausible to say that *shy* and *confident* is triggered by *company* and *other areas*. On the contrary, it is arguable that noun phrases complementing *shy* and *confident* are more likely to be associated with Scope, i.e. to what extent the Judgement made is valid. This indicates that emotion terms may not necessarily be used to construe emotional states, but rather, they may be used to construe ethical qualities. In consequence, such resources have to be accounted for in terms of Judgement, because it is JUDGEMENT in the ATTITUDE system that is associated with the evaluation of ethical qualities.

The upshot of the discussion is that lexical items (e.g. *shy*, *confident*, *complacent*) realising multilayered evaluation can well be characterised as Judgement resources. This argument is consistent with Thompson (2014a: 53-56), which is discussed below.

4.3.3 The scope of AFFECT (Thompson 2014a: 53-56)

The issue concerning how to deal with cases where emotional states are construed as ethical qualities has been further discussed in Thompson (2014a: 53-56). In general, Thompson (2014a) addresses three issues concerning the practice of appraisal analysis;

they are: 1) the scope of AFFECT, 2) Target-value mismatch between Judgement and Appreciation, and 3) expressions of one category function as the token of another category (or ‘Russian doll syndrome’ in Thompson’s words). The one which is most relevant to the current study is the issue concerning the scope of AFFECT.

Thompson suggests that where the emotions of an individual other than the writer/speaker are construed, those emotions can provide evidence for the ethical evaluation of that individual, which is particularly true in narratives (Thompson 2014a: 54). He further observes that “words like ‘cheerful’ and ‘confident’ [...] can be used to describe more or less permanent character traits that are not a response to a specific stimulus” (Thompson 2014a: 55). For example,

4.8 Being an extremely sociable and *cheerful person*, I have always enjoyed interacting with people.

4.9 I am a very open-minded and *cheerful person*. (examples from Thompson 2014a: 55)

These examples show that feelings may not always be construed as emotional states, but may as well be construed as ethical qualities. Based on this observation, Thompson argues that undirected feelings, i.e. feelings which are not triggered by specific stimuli, should be placed outside AFFECT, but “as part of JUDGEMENT resources” (Thompson 2014a: 56). This is a much clearer and stronger statement on how to deal with cases where emotional state is construed as ethical quality.

However, another question raised subsequently is into which Judgement subcategory such lexical items (e.g. *confident*, *cheerful*, *obsessive*) should be grouped. Since Thompson’s (2014a) discussion is mainly concerned with the scope of AFFECT, it is not surprising that he has not further addressed the question of into which subcategory of Judgement such items should be grouped either.

Summing up, it can be concluded that the current JUDGEMENT system cannot deal comprehensively with Judgement resources and thus has to be refined. The discussion above suggests that lexical items (e.g. *complacent in*, *jealous of*) which construe emotional states as ethical qualities should be characterised as Judgement lexis, because it is arguable that these items can be characterised as emotion-related personality descriptors (c.f. ‘emotional types of personality’ in Johnson-Laird & Oatley (1989), see Section 4.4.1.1 below). Given that these items construe human character, it is thus more reasonable to categorise these personality descriptive lexical items as Judgement resources, because it is the JUDGEMENT system in ATTITUDE that is

concerned with the ethical evaluation of human character.

This further raises another critical issue, that is, which subcategory of Judgement should such resources be grouped into if they are associated with judgement meanings. The fact that there is currently no Judgement category which is related to this type of judgement, i.e. judgement about emotional types of personality traits, makes it difficult to account for these resources. It is in these respects that I argue that the JUDGEMENT system should be refined so as to enable it to deal effectively with Judgement resources.

4.4 Refining JUDGEMENT: A Typological Perspective

Having contextualised the problem, this section aims to offer a solution to it. It is suggested that JUDGEMENT should be extended to cover those resources which construe attitudes towards the “emotional types of personality” (Johnson-Laird & Oatley 1989: 97), and that Emotivity should be established as a new sub-type of Judgement to deal with these resources (Section 4.4.1). The systematisation of Judgement resources will be discussed accordingly (4.4.2).

4.4.1 Emotivity as a new sub-type of Judgement

This subsection presents the main argument of this chapter. It will be argued that lexical items construing attitudes towards emotional types of personality traits should be accounted for in terms of Judgement. Supportive evidence for this argument will be drawn from both personality psychology and corpus analysis. Emotivity – attitudes construed towards emotional types of personality, will be tentatively proposed for the categorisation of these resources.

4.4.1.1 Evidence from personality psychology: emotion terms can be used to describe personality traits

Austin (1957) argues that any distinction worth drawing is encoded in naturally occurring language; this is later discussed as ‘wisdom’ embedded in language by Saucier and Goldberg (1996a, 2001). This philosophical belief has been echoed in the lexical approach to personality psychology (e.g. Johnson-Laird & Oatley 1989; Saucier & Goldberg 1996a, 2001; Chung & Pennebaker 2008; Revelle & Scherer 2009). Personality researchers in this tradition suggest that significant, distinctive and widespread personality traits tend to be encoded in naturally occurring language, and that the degree of the significance of the personality traits correspond to its linguistic

representation (McCrae & John 1992; Saucier & Goldberg 1995, 1996a, b, 2001; McCrae & Costa 1997; De Raad & Kokkonen 2000). They further argue that personality traits can be abstracted from analysing personality descriptors, i.e. linguistic forms. For example, personality researchers in this tradition developed the Five Factor Model of personality (FFM) based on the analyses of personality descriptors; the validity and applicability of this model has been supported by a number of subsequent studies (e.g. Yang and Bond 1990; Saucier & Goldberg 1996a, b; Nofle & Robins 2007; Poropat 2009).

This indicates the feasibility and reliability of generalising abstract semantic categories by analysing systematically linguistic resources. It is in this sense that it can be said “our common stock of words embodies all the distinctions men have found worth drawing” (Austin 1957: 8). This is consistent with the method used to develop the APPRAISAL model, that is, the APPRAISAL model is also developed on the basis of analysing linguistics resources associated with evaluation.

More notably, researchers adopting a lexical approach to personality psychology have argued that emotion terms can be used to describe personality traits (e.g. Johnson-Laird & Oatley 1989; Saucier & Goldberg 1996a b, 2001; Ball & Breese 2000; Revelle & Scherer 2009). Particularly worth introducing is Johnson-Laird and Oatley (1989) who examined the set of words Fehr and Russell (1984) obtained by asking participants to write down emotion terms. Johnson-Laird and Oatley (1989: 97) notice that “[m]any of the subjects’ responses denoted, not emotions *per se*, but expressions of emotions..., **personality traits related to emotion** (e.g. outgoingness, gentleness, sensitive, stubbornness, hardness, vulnerability, hyperactive)” (emphasis mine). They further argue that “[c]ertain terms refer to [...] an even longer-term state – a disposition of the personality towards feeling that emotion. [...]. What our theory predicts is that **basic emotion terms can be used to refer to moods or to emotional types of personality**” (Johnson-Laird & Oatley 1989: 97, emphasis mine). In other words, personality or character traits can be described by emotion terms. It is this argument that provides some new insights into the analyses of cases where feelings are not construed as emotional states but as kinds of ethical qualities. That is, in terms of appraisal, this suggests that such cases should be characterised as Judgement resources, because it is JUDGEMENT in APPRAISAL that is concerned with the ethical evaluation of human character and/or behaviour, as noted in Section 4.3 above.

In fact, similar arguments have also been made by research adopting a linguistic

approach to appraisal. For example, Hunston (2003a: 353) has argued that “emotional responses may be indicated as a quality of the responder”; Thompson (2014a: 55) has similarly pointed out that some emotion words (e.g. *confident*, *cheerful*) can be used to describe more or less permanent character traits, and argued that the construal of third person’s emotion can be used to describe what kind of person s/he is (see Section 4.3.3 above). This further indicates that there is a close connection between emotion and personality traits, or more specifically, attitudes construed towards emotional types of personality should be considered as one dimension of Judgement.

To recapitulate, research in personality psychology, in particular Johnson-Laird and Oatley’s (1989) discussion, offers some valuable insights into the appraisal analysis of those emotion-related personality descriptors. Their observation that emotion terms can be used to describe personality traits strongly supports the argument that lexical items denoting emotional types of personality traits should be characterised as Judgement resources.

4.4.1.2 Evidence from corpus analysis: massive linguistic representation of attitudes towards emotional types of personality

In addition, researchers in personality psychology have also argued that “[t]he degree of representation of an attribute in language has some correspondence with the general importance of the attribute” (Saucier & Goldberg 2001: 849, italics original). In other words, the more frequently an attribute is represented in language, the more important the attribute is. In this sense, it would be reasonable to propose a new category to cover those lexical items denoting emotion-related personality traits, provided that this attribute is frequently represented in language. Then the question at hand is: is the evaluation of emotional types of personality traits significantly frequently represented in naturally occurring language?

The answer to this question might be obtained from a corpus investigation. From a corpus linguistic perspective, this question further relates to two aspects: 1) how to identify lexical items denoting emotional types of personality, and 2) how many lexical items and/or linguistic patterns can thereby be identified. The two aspects are discussed in turn.

It is relatively easy to decide whether a lexical item is associated with the construal of emotion or the evaluation of character/behaviour or both; however, what is difficult is to decide whether the affective aspects or the judgement aspects of some particular

items carry more weight. For example, for words like *arrogant* and *embarrassed*, I believe that the indeterminacy or controversy does not lie in whether these words construe emotion or evaluate the behaviour or both, but lies in which dimension (i.e. the affective or the judgement dimension) is prioritised. This makes the identification of items denoting emotional types of personality traits a very challenging task.

In the current study, the suggested solution is that lexical items (e.g. *pleased*, *sad*) whose meanings are more emotion-oriented should be grouped into Affect whereas those items (e.g. *confident*, *complacent*) whose meanings are more character-oriented should be considered as items denoting emotional types of personality and thus qualify as Judgement resources. This is very subjective though. Unfortunately, since no objective way (e.g. computer programme) is available to test whether the affective aspect or the judgement aspect of a specific item weighs more, the classification is inevitably subjective and intuitive.

Nevertheless, in order to minimise the intervention of human intuition, two lexicogrammatical patternings are proposed to test any ‘suspicious’ lexical items. Generally speaking, items are considered to be able to denote emotional types of personality provided that they can be potentially used in both the following two diagnostic frames: 1) *someone is (a/an) ADJ (person by nature)*, and 2) *I consider/find someone (to be) ADJ* (cf. Martin & White 2005: 58-59). Some general corpora (e.g. BNC, BoE, COCA⁴) were also used to test whether one particular target item can be used in these frames. In addition to the two formal tests, where it is necessary, I also employ the semantic configuration test, i.e. whether an emotional state is triggered by a specific stimulus or is construed as an ethical quality, to identify those lexical items which denote emotional types of personality (see Section 4.3.2 above).

Having discussed how to recognise items denoting emotional types of personality traits, the next task is to find out how many such lexical items there are and whether they are prominently encoded in naturally occurring language. To accomplish this task, I examined all the lexical items occurring in each adjective complementation pattern in the CoB. Based on the examination, I propose the following lexical items which, according to the discussion above, can be characterised as emotion-related personality descriptive lexical items (see Table 4.2 below).

⁴ BoE stands for Bank of English, and COCA for Corpus of Contemporary American English.

As can be seen from Table 4.2, there indeed are a considerable number of lexical items which can be used to describe emotional types of personality traits. In fact, it is found that the number of items which are used to construe attitudes towards emotional types of personality traits ranks the fourth among all the Judgement subcategories, and that the majority of adjective complementation patterns examined in the present study are associated with this attribute (see Section 6.3.2 for more detail). Overall, this suggests that the evaluation of emotional types of personality traits is (at least proportionally) significantly represented in language, which indicates that it is reasonable to propose a new Judgement category to cover these items.

Table 4.2: Emotion-related personality descriptive lexical items

Pattern	Lexical items
ADJ about	<i>serious about, optimistic about, confident about, patient about, shy about, understanding about, sensitive about, uncompromising about, diffident about, fanatical about, modest about, pessimistic about, obsessive about, sentimental about, ambivalent about, passionate about, apathetic about</i>
ADJ for	<i>thoughtful for, smug for, sensitive for, jealous for</i>
ADJ in	<i>confident in, intolerant in, complacent in, passionate in, modest in, optimistic in, pessimistic in, aggressive in</i>
ADJ of	<i>jealous of, confident of, shy of, intolerant of, tolerant of, envious of, impatient of, appreciative of, considerate of</i>
ADJ on	<i>confident on, sensitive on</i>
ADJ with	<i>impatient with, patient with, shy with, self-confident with, arrogant with</i>
ADJ to n	<i>sympathetic to, indifferent to, unsympathetic to, sensitive to, faithful to, insensitive to, over-sensitive to, attentive to, unfaithful to</i>
ADJ towards	<i>considerate towards, sensitive towards, thoughtful towards, ambivalent towards</i>
ADJ that	<i>confident that, optimistic that, jealous that</i>
ADJ to-inf.	<i>impatient to-inf., patient to-inf., ambitious to-inf.</i>

Moreover, it is worth stressing that these items have distinct semantic features, i.e. they construe an ethical evaluation of human character, but at the same time, they are more or less associated with the construal of emotion. Some examples are given below (see concordance lines 16 – 25).

16	A68 2233	Ramsey was abnormally	<i>shy about</i>	meeting the upper class
17	CDC 1355	we have been	<i>jealous for</i>	the unswerving loyalty
18	ART 2190	I began to get very	<i>complacent in</i>	my guitar playing
19	ANF 1520	The painters were	<i>envious of</i>	Zbo's life
20	CEE 450	I ... felt particularly	<i>sensitive on</i>	this point
21	EVN 193	She was supremely	<i>self-confident with</i>	the gift of being able to bubble ...
22	GU9 1464	she was extremely	<i>sympathetic to</i>	our aims as well
23	ANF 1500	Modigliani was ...	<i>considerate towards</i>	the older woman

24	ABL 590	Helen was	<i>confident that</i>	her love would remove all doubts
25	G3B 857	Everyone, ..., was very	<i>impatient to</i>	see the prisoners

Reading these concordance lines, one gains a strong impression that these lexical items are used to construe attitudes towards one's personality traits which are in turn to some extent related to feelings. They can be characterised as emotion-related personality descriptors and thus as Judgement resources, though the patterns do limit the personality traits to be temporary rather than permanent. Further, it can be argued that the judgement aspects of the meanings of these lexical items outweigh the affective counterpart. It is this very nature, i.e. they describe emotion-related personality traits and their judgement dimension carries more weight than the affective dimension, that makes them different from other affective or judgement adjectives.

Taking into consideration the distinctive features of these items (e.g. they construe attitudes towards personality traits which are more or less related to emotional states) and the massive number of such lexical items, it can then be argued that the original JUDGEMENT system should be extended to cover these items. Since this sub-type of Judgement has not been accounted for in the original JUDGEMENT system, I shall propose the category 'Emotivity' as a new sub-type of Judgement to deal with those resources which construe attitudes towards emotional types of personality traits.

4.4.2 Typological representation of JUDGEMENT

4.4.2.1 A typological perspective on the meaning categories in JUDGEMENT

Before moving on to the typological representation of JUDGEMENT, I would like to discuss how the system should be organised. Simply put, my suggestion is that, apart from the distinction between judgement of social esteem and judgement of social sanction, the distinction between evaluation of character and evaluation of behaviour should also be taken into account.

As shown in Martin and White (2005: 53), the typological representation of the current JUDGEMENT system is primarily concerned with the distinction between social esteem and social sanction. For the sake of clarity, the system is reproduced in Table 4.3 below (see also Martin & White 2005: 52-53; Section 2.3.2.2).

I agree that it is important to differentiate judgement of social sanction from judgement of social esteem. However, I would also argue that it is important to take

into account whether it is the participant’s behaviour or it is the participant’s character that is being evaluated. This is consistent with White’s (2011: 22-23) argument,

JUDGEMENT is the domain of meanings by which attitudes are construed **with respect to human behaviour** – approval/disapproval of human behaviour by reference to social acceptability/social norms; **assessments of a person’s character** or how they ‘measure up’ to social requirements of expectations.

(White 2011: 22-23, emphasis mine).

Table 4.3: The JUDGEMENT system (adapted from Martin & White 2005: 53)

Social esteem	Normality: ‘how special’ <i>lucky, fortunate, normal, natural, familiar, peculiar, odd, celebrated, etc.</i>
	Capacity: ‘how capable’ <i>powerful, weak, naïve, robust, sound, healthy, expert, shrewd, stupid, etc.</i>
	Tenacity: ‘how dependable’ <i>brave, heroic, cautious, loyal, dependable, adaptable, timid, disloyal, etc.</i>
Social sanction	Veracity: ‘how honest’ <i>truthful, honest, frank, dishonest, deceptive, blunt, devious, tactful, etc.</i>
	Propriety: ‘how far beyond reproach’ <i>good, moral, kind, fair, humble, polite, respectful, bad, immoral, evil, etc.</i>

Clearly, this suggests that it is important to take into account the distinction between the evaluation of behaviour and the evaluation of character when modelling JUDGEMENT. Surprisingly, however, this distinction has been neglected when Martin and his colleagues organised the system network of Judgement (e.g. Martin & Rose 2003: 62; Martin & White 2005: 53).

My argument, then, is that the distinction between the evaluation of character and the evaluation of behaviour should be accounted for when presenting the system network of Judgement. The simple reason for this argument is that the consideration of both the distinctions between social esteem and social sanction and between evaluation of character and evaluation of behaviour could make the description of Judgement resources inherently more coherent and logical, which could further contribute to a relatively easier and more realistic classification of Judgement lexis.

Since the Judgement subcategories have been discussed in terms of the distinction between social esteem and social sanction (see Martin & White 2005: 52-53), I will focus on discussing these subcategories in terms of the distinction drawn between the

evaluation of behaviour and the evaluation of character. The intention is to illustrate how the system network of Judgement should be represented typologically.

From a typological perspective, it is arguable that the subcategories Normality, Capacity and Propriety in the JUDGEMENT system are associated with the evaluation of behaviour. It is less controversial to say Capacity and Propriety are concerned with the evaluation of behaviour, because ability (Capacity) and appropriateness (Propriety) are clearly connected with action/behaviour, i.e. can someone perform an action and is the action performed properly. Normality is considered to be associated with behaviour in the sense that it is his/her action/behaviour that makes a person special. This interpretation is consistent with White’s statement that “Judgement of social esteem can be to do with Normality (**how usual someone’s behaviour is**)” (White 2011: 23, emphasis mine). Clearly, this indicates that Normality is concerned with the evaluation of behaviour. For the purpose of illustration, some concordance lines are given below.

26	G3B 718	I was	<i>fortunate to</i>	find a summer job
27	J56 1038	Johnny ...was	<i>fortunate to</i>	survive...
28	ANF 817	He was	<i>lucky in</i>	attracting funds
29	ADP 2290	We were	<i>lucky in</i>	finding something to drink
30	B0R 512	King George had been	<i>lucky to</i>	escape when his coach ...

lucky and *fortunate* are illustrative lexical items for Normality (see Martin & White 2005: 53; cf. Ngo and Unsworth’s (2015) discussion on Normality: fortune). Concordance lines above show that they are typically associated with actions, as indicated by the to-infinitive clause (e.g. *find*, *escape*) or the gerund. The point becomes clear now that Normality can be justifiably characterised as dealing with the evaluation of behaviour.

The other two subcategories in the original JUDGEMENT system – Tenacity (e.g. *brave*, *reliable*) and Veracity (e.g. *honest*, *faithful*), are more character-oriented, and thus they are associated with the evaluation of character. The reason why I argue these lexical items are character traits descriptors is that they can be used in the frame *someone is ADJ person (by nature)* (see Section 4.4.1.2 above).

As noted earlier, the newly established category of Emotivity is concerned with the evaluation of emotional types of personality traits, which means that Emotivity also fits into the evaluation of character. Additionally, it is plausible to argue that Emotivity fits into judgements of social esteem because Emotivity, according to the discussion above, is clearly more concerned with social esteem than with judgements made on the

basis of social norms.

From a topological perspective, however, it should be noted that the distinctions between judgement of social esteem and judgement of social sanction, and between the evaluation of character and the evaluation of behaviour, and also between the sub-types of Judgement, are not categorical but equivocal. For example, the evaluation of a person as reliable (evaluation of character – Tenacity) is probably based on his/her competence (evaluation of behaviour – Capacity), which suggests that the evaluation of character is closely connected with the evaluation of behaviour. This will be further discussed in Section 4.5.2 below.

4.4.2.2 The modified JUDGEMENT system

In the previous sections, I have made some suggestions for refining the JUDGEMENT system. To recapitulate, drawing on evidence from both personality psychology and corpus linguistics, I have argued that the current JUDGEMENT system should be extended to cover those resources which construe attitudes towards emotional types of personality traits. Since this type of Judgement has not been accounted for in the original JUDGEMENT system, I thus proposed Emotivity, i.e. judgement made about the emotional types of personality, as a new sub-type of Judgement (see Section 4.4.1 above). Furthermore, I have argued that both the distinctions between judgement of social esteem and judgement of social sanction and between the evaluation of behaviour and the evaluation of character should be taken into consideration when systematising Judgement resources (see Section 4.4.2.1 above).

In addition, it needs to be pointed out that it is not the best way to list words in isolation as the illustrative examples for each meaning category; instead, lexical items (e.g. *good at*, *brave about*, *confident in*) should be given as examples for each appraisal category, as noted in Section 2.3.3. This is because words in isolation only have meaning potential; the meaning of a word is dependent on the pattern in which it occurs. For the purpose of illustration, see concordance lines below.

31	A6E 399	Bernie was	<i>wonderful at</i>	making us think ...
32	EVH 134	He was pretty	<i>hopeless at</i>	ball games, so ...
33	G39 922	I'm	<i>terrible at</i>	remembering names - and
34	B1Y 1180	The Chinese are	<i>great at</i>	enjoying themselves!
35	H7E 1693	She was	<i>excellent at</i>	getting to know people ...

When looking at single words, it is hard to imagine that adjectives like *wonderful*, *hopeless*, *terrible* and *great* can be used to express a judgement about a person’s ability. However, they can be used to evaluate a person’s ability when they co-occur with the pattern **ADJ at**, as shown in concordance lines 31 – 35. In terms of Appraisal, they realise Judgement: Capacity. The point thus is that illustrative examples given for each meaning category should be lexical items other than words in isolation, because form (or pattern) and meaning are associated, as discussed above (see also Sinclair 1991, 1999, 2004; Hunston & Francis 1998, 2000; Hanks 2013).

Bringing together all the observations and arguments made above, the modified version of JUDGEMENT system can be typologically represented as below (see Table 4.4).

Table 4.4: The typological representation of the refined JUDGEMENT system

	Evaluation of behaviour	Evaluation of character
Social esteem	Normality: uniqueness e.g. <i>lucky to-inf.</i> , <i>famous for</i> , <i>notable for</i> , <i>famed for</i> , etc.	Tenacity: dependability e.g. <i>careful to-inf.</i> , <i>brave about</i> , <i>loyal to</i> , <i>wary about</i> , <i>supportive of</i> , <i>adaptable to</i> , etc.
	Capacity: ability e.g. <i>good at</i> , <i>adept at</i> , <i>capable of</i> , <i>brilliant about</i> , <i>clueless about</i> , etc.	Emotivity: emotional types of personality e.g. <i>confident of</i> , <i>complacent in</i> , <i>shy about</i> , <i>jealous of</i> , <i>patient about</i> , etc.
Social sanction	Propriety: appropriateness e.g. <i>good to</i> , <i>generous of</i> , <i>rude to</i> , <i>short on</i> , <i>guilty of</i> , <i>polite to</i> , etc.	Veracity: truthfulness e.g. <i>frank about</i> , <i>true to</i> , <i>honest about</i> , <i>cunning in</i> , <i>blunt in</i> , etc.

It is worth mentioning that the term ‘Emotivity’ has also been regarded as one of the parameters of evaluation in Bednarek (2006, 2008b) where it is explained as follows: “[t]he parameter of EMOTIVITY is concerned with the writer’s evaluation of aspects of events as good or bad, i.e. with the expression of writer approval or disapproval” (Bednarek 2006: 45). Clearly, Emotivity which refers to the construal of attitudes towards emotion-related character traits in the current study is rather different from that of Bednarek (2006, 2008b).

At this point, there are some aspects need to be clarified. Firstly, my proposed taxonomy of Judgement resources is a relatively minor modification to that offered by Martin and his colleagues. Secondly, though the distinction between positive and negative judgement is not explicitly represented in the modified system, it is assumed

within it. I agree that it is necessary to recognise positive and negative judgement as a general principle. In practice, however, it should be noted that determining whether a quality such as ‘shyness’ or ‘persistence’ is to be regarded as positive or negative is not always straightforward, and may depend on point of view. Lastly, I have argued that both distinctions are of equal significance between social esteem and social sanction and between the evaluation of behaviour and the evaluation of character (see Section 4.4.2.1 above), which means that both distinctions should be borne in mind when attempting to identify and classify lexical items associated with attitudinal meanings. It will be shown as the present study progresses that these modifications could make the classification of attitudinal lexis relatively easier and more realistic.

4.5 The JUDGEMENT System: A Topological Perspective

It has been mentioned above that taxonomies, or typological descriptions, are representation of agnation with respect to a set of particular criteria (see Section 4.2 above). However, there is (at least) one disadvantage of typological descriptions resulting from that very ‘set of particular criteria’ (cf. Polinsky & Kluender 2007; Matthiessen, Lam & Teruya 2010: 231-232), because:

Once a criterion, or more usually a set of criteria, is adopted as a classificatory principle then the parameters are set. Things are similar or different with respect to these criteria – this is the information the taxonomy represents. But there are always other criteria that could have been chosen, that have been set aside.

(Martin & Matthiessen 1991: 346)

This indicates that typological descriptions may not be able to capture all the relevant information about a given category. In other words, there may be ‘leftovers’ in typological descriptions. Consequently, those leftovers which have not been captured in typological representation will need to be described from a complementary perspective, i.e. from a topological perspective.

In fact, it has been noted that interpersonal meaning is one of the areas which needs to be described from both typological and topological perspectives. For example, Lemke (1998) argues that interpersonal meaning cannot be exclusively described in categorical terms; Lemke (1999b) points out that evaluative meanings represent ‘a case of typology approximating topology’ because evaluation is semantically inherently gradable; in a similar vein, Martin and White find “it useful to interpret some systems

as scaled and suspect that this may in fact be a distinctive feature of interpersonal semantic system in general. [...]. Technically speaking this is a shift from typology to topology” (Martin & White 2005: 16).

In terms of the present study, this means that a topological description of attitudinal meanings is necessary in that it complements well the typological one. However, “this topological perspective has not yet been explored in more detail or from a more theoretical perspective in Appraisal theory” (Bednarek 2007b: 110). Therefore, I will further explore how a topological description can facilitate the description and systematisation of attitudinal resources in this section. The following discussion focuses on two aspects. The first one is concerned with a topological description of the ATTITUDE system with respect to the refined JUDGEMENT system (Section 4.5.1), and the second one is concerned with a topological description of the meaning categories identified in the refined JUDGEMENT system (Section 4.5.2).

4.5.1 A topological representation of the ATTITUDE system

The ATTITUDE system involves three semantic domains which are traditionally recognised as emotions, ethicals and aesthetics; they are labelled as Affect, Judgement and Appreciation respectively in the APPRAISAL model (see Section 2.3.2 for more detail). These semantic resources, though distinct, are more or less intertwined. For example, Martin and White (2005: 58-61) have pointed out that there are border areas between Affect and Appreciation: reaction, and between Appreciation: valuation and Judgement: capacity. Bednarek (2007b) has further discussed the phenomenon of blending or overlapping between Affect and Judgement (cf. ‘multilayered evaluation’ in Hunston 2011: 140-142). However, it has yet not been fully explored how Affect interacts with Judgement and how attitudinal resources can be accounted for from a topological perspective accordingly.

In Section 4.4, I have argued that Emotivity, i.e. the evaluation of emotional types of personality, should be established as a new sub-type of Judgement. This argument is based on the corpus observation that this attribute is frequently represented in naturally occurring language. More importantly, it is arguable that the Judgement dimension of these lexical items is prioritised over the Affect one, though they are indeed more or less related to emotional responses. This, on the one hand, suggests that these items should be characterised as Judgement resources. On the other hand, this also suggests that the Affect dimension and Judgement dimension can be seen as being located at the

opposite of a cline of evaluative meanings associated with human beings, i.e. the construal of emotion and the ethical evaluation of human character/behaviour. Emotivity resembles either one of them in terms of degree. Or put it another way, Emotivity could be considered as the intermediate category between Affect and Judgement (cf. Bednarek’s (2009a) discussion of ‘Covert Affect’).

According to Matthiessen *et al* (2010: 230), in a topological representation, “the more agnate categories are, the closer they are in space; and the less agnate categories are, the further apart they are”. This means that meaning categories interacting with one another should be placed closer spatially from a topological perspective. Accordingly, a topological interpretation of attitudinal resources can be presented as follows (see Figure 4.2 below).

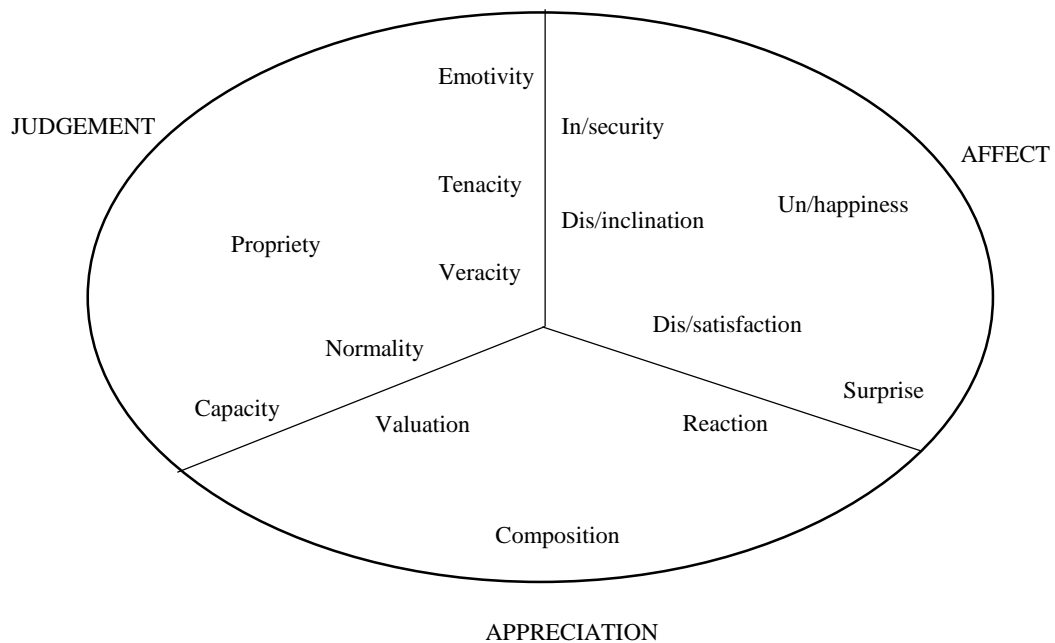


Figure 4.2: A topological perspective on the ATTITUDE system⁵ (cf. Martin 2000: 165)

It is reasonable to argue that there is a prototypical meaning category in each ATTITUDE subsystem, i.e. Un/happiness in AFFECT, Propriety (and Capacity probably) in JUDGEMENT, and Composition in APPRECIATION. The argument that there is a ‘prototype’ in each meaning category can be supported with the Prototype Theory in cognitive linguistics (e.g. Berlin & Kay 1969; Rosch 1975, 1978; Rosch & Mervis 1978; Taylor 1995; Ungerer & Schmid 2006) and the concept of ‘family

⁵ The AFFECT system here follows Bednarek’s (2008a) classification of affective meanings, as the proposed refinement of the JUDGEMENT system is largely based on her model of Affect.

resemblance' in language philosophy (e.g. Wittgenstein 2009). From a topological perspective, the prototypical meaning category in one semantic domain may not resemble the other prototypical category/ies in a different domain; this is the reason why the prototype in each ATTITUDE subsystem are placed spatially farther from each other, as shown in Figure 4.2 above.

It also becomes clear that, topologically, attitudinal resources are semantically related. To be specific, Affect and Appreciation share similarities which is reflected by the connection between Dis/satisfaction and Surprising and Reaction, Affect and Judgement by the connection between Emotivity and In/security, Appreciation and Judgement by Valuation and Normality (and Capacity probably).

What is more, the topological description of attitudinal resources shows that it is certainly significant to have Emotivity in the JUDGEMENT system because it makes the interpretation of attitudinal resources more coherent. I have pointed out that the link has not been identified between Affect resources and Judgement ones, though researchers have explained how Affect and Appreciation, and Appreciation and Judgement are linked (see Martin and White 2005; Bednarek 2009a). As a consequence, there seems to be a gap between the characterisation of Affect and Judgement resources. The proposed modifications on AFFECT, the exclusion of Confidence in particular, and on JUDGEMENT, i.e. the establishment of Emotivity, appear to successfully bridge the gap, which further contributes to a more complete and coherent description of attitudinal resources.

4.5.2 A topological description of the JUDGEMENT system

A topological description is not only applicable to deal with attitudinal resources in general, it is also useful for describing one particular sub-type of Attitude. For instance, Bednarek (2008a: 167-169) adopts a topological perspective to describe the relation between the affect sub-types. She points out that her modified version of AFFECT "is set up as a fuzzy system, with no clear boundaries between the affect types" (Bednarek 2008a: 167). An example to illustrate this point is the interaction of Un/happiness and Surprise. Bednarek (2008a: 161-165) provides corpus evidence to show that Surprise is not necessarily construed as negative, because sometimes we might be happy to be surprised, as in *I was surprised and delighted*. This relationship between Un/happiness and Surprise may not be adequately captured by a clear-cut typological descriptions,

but could be captured in a topological description, which indicates that typological and topological descriptions are complementary.

In short, topology could also facilitate the description of the relationship between meaning categories identified in one particular subsystem of ATTITUDE; this will be further exemplified in this subsection. The discussion will be circumscribed within the semantic domain of Judgement. More specifically, I will focus on discussing the JUDGEMENT system from a topological perspective, including a topological description of the distinctions made in JUDGEMENT (Section 4.5.2.1) and a topological description of the relationship between the meanings categories identified in JUDGEMENT (Section 4.5.2.2). The intention is to provide a more comprehensive description and characterisation of Judgement resources.

4.5.2.1 A topological perspective on the distinctions made in JUDGEMENT

As mentioned in Section 4.4.2.1 above, the distinctions are not clear-cut between judgements of social esteem and judgements of social sanction, and between the evaluation of character and the evaluation of behaviour. For example,

4.10 Five innocent civilians died in the fire because of the firefighters' *incompetence*

4.11 He is *famous for* his *modesty*. (invented examples)

In example 4.10, although *incompetence* realises Capacity which is concerned with judgement of social esteem, it is plausible to argue that the utterance as a meaning unit is associated with Propriety which is related to judgement of social sanction, in the sense that the firefighters failed to do what they are supposed to do in that circumstance. Similarly, example 4.11 also blurs the distinction between judgement of social esteem and that of social sanction because it could be characterised as either Judgement: Normality realised by *famous for* (i.e. judgement of social esteem) or Judgement: Propriety realised by *modesty* (i.e. judgement of social sanction), depending on the criteria for the classification and on which has the priority (cf. Bednarek 2007b; Thompson 2014a). This suggests that, topologically, judgement of social esteem and judgement of social sanction are not mutually incompatible.

Further, it has also been mentioned that, from a topological perspective, the distinction between the evaluation of character and the evaluation of behaviour is not categorical but equivocal (see Section 4.4.2.1 above). In fact, researchers in personality psychology (e.g. Walker & Frimer 2007) have demonstrated that personality variables

could provide some evidence for the prediction and understanding of a person's behaviour, which suggests that there indeed has some interaction between one's character and one's behaviour. From a linguistic perspective, examples are also found where the evaluation of character and the evaluation of character interact with each other. Some examples from the CoB are given below.

36	BMM 1539	I was	<i>confident of</i>	beating him
37	ADR 613	He was very	<i>brave about</i>	the whole thing
38	EFX 929	he was	<i>generous to</i>	other poets
39	J0W 2647	he could be very	<i>rude about</i>	his colleagues

In terms of Judgement, lexical items (*confident of, brave about*) in instances 36 and 37 are associated with the evaluation of character, i.e. Emotivity and Tenacity respectively; and lexical items in instances 38 and 39 are associated with the evaluation of behaviour, i.e. Propriety. However, it is also plausible to argue that *confident of* may indicate that 'I am capable of beating him, in which case *confident of* is related to the evaluation of behaviour, i.e. Judgement: Capacity. This is also true for *brave about*. Though *brave about* is considered as an illustrative example for Tenacity (Martin & White 2005: 53), it may also indicate that 'he behaves bravely', in which case *brave about* is related to the evaluation of behaviour. Similarly, *generous* and *rude* are classified as Judgement: Propriety, which means that they are related to the evaluation of behaviour; but at the same time, *generous* and *rude* can be used to describe a person's character as well, as in instances *She was generous by nature* (H0A 974), *it is hard to love a rebellious and rude teenager* (B1Y 859).

Based on the discussion above, it can be concluded that the distinctions are not categorical between judgement of social esteem and judgement of social sanction and between the evaluation of character and the evaluation of behaviour. More importantly, the discussion suggests that a topological description reveals more semantic relatedness between categories which otherwise may not be captured in a typological one. This brings in the second point I am going to make. That is, there is also a scale of semantic relatedness among the meaning categories identified in the JUDGEMENT system, which is discussed below.

4.5.2.2 A topological perspective on the meaning categories in JUDGEMENT

It has been pointed out that the attitudinal potential of an item is to a great extent dependent on the context (Martin & White 2005: 52). For example, we can say *he is*

weak, though he should be strong; he is a coward, though he should be brave; he is pessimistic, though he should be optimistic; he is cunning, though he should be honest. All of these examples indicate a sense of condemnation, i.e. Propriety in terms of Judgement, though the wording (*weak, coward, pessimistic, cunning*) is not directly associated with condemnation. This means that, under specific circumstance, a word may realise a different type of Judgement from what is realised by the utterance in which the word is used (cf. Thompson's (2014a: 59-66) discussion of 'Russian doll syndrome'), which in a way blurs the distinctions made between discrete categories.

Similarly, any type of Judgement could be related to Normality when it is made within a group or a community. For example, we can say *among all the students here, only he is honest about what they have done / only he is courageous to fight against the villain / only he is capable of passing the exam / only he is confident in beating the other team.* These (invented) examples can be said to be associated with Judgement: Normality if it is the whole utterance that is being analysed; at the same time, these examples can also be analysed according to the wording, in which case these instances need to be coded as different types of Judgement (i.e. *honest* – Veracity, *courageous* – Tenacity, *capable* – Capacity, and *confident* – Emotivity). The point is that the distinctions made between the meaning categories in the JUDGEMENT system are not as clear-cut as suggested in the typological representation (see Table 4.4 above); they are interwoven instead (cf. 'evaluative interplay' in Bednarek 2006: 58-59, 2008b). This can also be exemplified with a genuine example from the CoB,

4.12 it is that the person who was *best at* doing something didn't want to do it – and the person who was available to do it wasn't good at it. (CH8 1804)

It is plausible to interpret example 4.12 as realising either Judgement: Capacity or Judgement: Normality. It is clear that *best at* expresses Judgement: Capacity; however, if we look at the whole utterance, it can also be considered as realising Judgement: Normality in the sense that 'the person' is special because s/he is *best at* doing this *something* (cf. S. Lee's (2007) discussion about 'multiple coding').

The discussion above should have amassed some evidence to show that typological and topological descriptions are complementary, and together they can contribute to a more comprehensive and coherent description of attitudinal meanings. It has been shown that, typologically, it is important to establish discrete meaning categories based on the semantic differences, and topologically, that the distinctions

between the meaning categories are not categorical but equivocal. In short, a typological representation tells us how the categories are semantically differentiated whereas a topological representation reveals how they are semantically related.

4.6 Summary

In this chapter, I have refined the original JUDGEMENT system and addressed the adequacy of typology and topology in the description of attitudinal resources. Looking at Bednarek's (2008a) modification on Affect, I observed that Confident is no longer considered as an independent sub-type of Affect. I then addressed the question as to where lexical items realising Confident and other meanings alike (e.g. *complacent in, jealous of*) should be placed in the ATTITUDE system. Following Thompson's (2014a) discussion, I have argued that cases where emotional states are construed as ethical qualities should be characterised as JUDGEMENT resources. Since these resources have not yet been adequately accounted for, it is thus suggested that the JUDGEMENT system should be refined accordingly. Drawing on supportive evidence from both personality psychology and corpus investigation, I proposed tentatively the category of Emotivity to deal with these under-explored resources. Additionally, I have argued that the JUDGEMENT system should be organised according to both the distinctions drawn between judgement of social esteem and judgement of social sanction, and between the evaluation of character and the evaluation of behaviour; and I have further argued that lexical items, i.e. the combination of evaluative lexis and grammar patterns (e.g. *good at, guilty of*), other than lexis in isolation, should be given as illustrative examples for appraisal categories. Bringing together all these arguments, a typological representation of JUDGEMENT was then provided. This should have contributed to a more delicate and fine-grained framework of Judgement in particular and to the on-going development of Appraisal in general.

It has been further argued from a topological perspective that the refined JUDGEMENT system makes the construal of attitudinal resources more logical and coherent. The newly established category, i.e. Emotivity, in the JUDGEMENT system is particularly helpful for accounting for why some affective lexis can be used to express judgement meanings. Further, it has been illustrated that, topologically, the distinctions made between judgement of social esteem and judgement of social sanction, and between the evaluation of character and the evaluation of behaviour, are not categorical

but equivocal, which is also true for the distinctions made between the meaning categories in the JUDGEMENT system. Overall, it has been shown that typological and topological descriptions together contribute to a more complete and coherent description and characterisation of attitudinal meanings, which further indicates the adequacy of systemic typology and topology in the description and characterisation of interpersonal resources.

CHAPTER 5 CORPUS ANALYSIS: PROFILING

LEXICAL ITEMS

5.1 Introduction

Based on the refined JUDGEMENT system, it is possible now to perform a quantitative analysis of the adjective-in-pattern exemplars, i.e. the co-occurrence of adjectives and patterns (e.g. *good at, loyal to*), occurring in the CoB. This is the subject of this chapter, namely, this chapter examines the distribution of those evaluative lexical items occurring in each adjective complementation pattern in terms of the ATTITUDE system. The purpose of the examination is to provide corpus evidence for the exploration of the association between (grammar) patterns and (attitudinal) meanings.

This chapter is guided by two research questions: 1) how the evaluative lexical items occurring in each adjective complementation pattern are distributed within the ATTITUDE system, and 2) what insights can the examination of the distribution of lexical items offer into the association between grammar patterns and attitudinal meanings. The first question is addressed by identifying and classifying the evaluative lexical items occurring in each adjective complementation pattern in terms of Attitude. The second question is addressed by discussing the quantitative information in the light of the appraisal framework.

In the following sections, I will first introduce the criteria for identifying the lexical items for further analysis (Section 5.2). I will then present a detailed scrutiny of how these lexical items are distributed into Affect, Judgement and Appreciation and discuss briefly the quantitative information with respect to appraisal (Section 5.3). Lastly, I will provide a summary of the corpus analysis (Section 5.4).

5.2 Criteria for the Analysis

I have discussed the principles for pattern identification, i.e. frequency, dependency and interpretation (see Section 2.2.2.1). Bearing these principles in mind, I propose another three criteria for identifying lexical items, i.e. the co-occurrence of word and pattern or the word-pattern combination (e.g. *brave about, complacent in*). In general, lexical items qualify for further study provided that they: 1) instantiate a given adjective complementation pattern, 2) express evaluative meanings, and 3) occur at least twice in the CoB. These criteria are briefly discussed in turn.

5.2.1 Criterion 1: items have to instantiate a pattern

It is worth introducing how sequences of *adjective + non/finite clause / prepositions* can be extracted before we move on to discuss the criteria in detail. Simply put, the candidates are semi-automatically extracted from the CoB by performing queries of sequences which normally instantiate grammar patterns (also see Section 4.4.1). For instance, the query of the sequence *adjective + at* can be performed by composing the query script as ‘_AJ* at’. The query will then return all the hits containing the sequence *adjective + at* in the corpus, which further helps to identify all the instances instantiating the pattern **ADJ at** (see Stubbs (2013: 13-34) for the discussion on ‘sequence and order/pattern’). An example of one query is given in Figure 5.1 below.

Your query "_AJ* at" in the subcorpus "Biography" returned 728 hits in 100 different texts (3,556,685 words [100 texts]; frequency: 204.68 instances per million words)

No	Filename	Hits 1 to 50	Page 1 / 15
1	A0P_873	' which were in the van of the movement. Dudek was	surprised at the request; it was not a course designed to deal with
2	A0P_1082	before kings. A keen and powerful debater, he was not	amused at the dreariness of the Executive's meetings, the small talk and
3	A0P_1364	opening up. What was true on the wider front was also	true at a personal level: Layton was about to go into his most
4	A0P_1858	what you expected? Are we together too much? Did Destiny	shy at the double Turkish towel, our knowledge of each other 's skin
5	A61_100	to the orchard from the village road. The evening was fairly	light at 10 p.m. So Sid and I sat just outside the trench
6	A61_179	was fairly quiet, except for the occasional sniping. Sid was	awake at 7 a.m., still complaining of feeling tired. It had just
7	A61_201	for about five minutes when there was a very loud explosion very	close at hand. I stopped playing just as the church door burst open
8	A61_485	we walked in the direction of our trench. I was quite	surprised at his reaction when I informed him of the death of 'Egg
9	A61_577	The sea can still be seen from the orchard and it is	possible at this stage that the German Army could push the Commando Brig
10	A61_649	closing. I'm sure if it wasn't for the explosions	close at hand he would have dropped off to sleep. 'Well,
11	A61_977	all badly wounded! Jesus Christ, Piper, our guns are	better at inflicting casualties on us than the Germans.' The time was
12	A61_1685	. Fortunately the shelling had ceased with just the occasional mortar burst	close at hand when the Duty Officer made his rounds at 'stand-to'
13	A61_1715	but had dropped short in the orchard explode with a terrific roar	close at hand, causing a shower of dirt to fall from the roof
14	A61_1752	their trenches. All was silent except for the automatic fire fairly	close at hand, somewhere down by the crossroads. I exchanged a greeting
15	A61_1770	first thing in the morning, first time I have really felt	miserable at 4 a.m. during 'stand-to'. By noon the sun has
16	A61_1854	Over the Border , as I got under way. A little	apprehensive at the turn just past the Saulnier farm, the spot referred to
17	A61_1991	to obtain new reeds for the bagpipes. The jeep driver was	pleased at the opportunity to get away for a few hours and we set
18	A61_2131	being carried by the two German soldiers. Each time firing occurs	close at hand, we all get down into the ditch — this adds
19	A61_2443	still snow on the top of Ben Nevis. The mountain looks	great at this time in the early morning, with the sun now shining

Figure 5.1: The query of **ADJ at** in the CoB

The BNCweb CQP-edition provides powerful corpus analysis tools (see Hoffman *et al* (2008) for more detail); the tool which I use most frequently is the ‘frequency breakdown’. The embedded function of ‘frequency breakdown’ helps to produce a table which lists all the examples of *adjective + at* and gives the statistical information about

the number of occurrences and the ratio between the occurrences of one particular example and the total number of the hits returned (see Figure 5.2 below). By clicking an example, it presents an extended syntagmatic context in which this example occurs, which enables the researcher to examine whether or not a given lexical item qualifies for further analysis.

Frequency breakdown of lexical items for position "node" (336 types and 728 tokens)			
 <	<<	>>	>
Frequency breakdown of tags only			Go!
			Download whole table
No.	Lexical items	No. of occurrences	Percent
1	good at	53	7.28%
2	present at	30	4.12%
3	surprised at	18	2.47%
4	adept at	16	2.2%
5	close at	16	2.2%
6	happy at	11	1.51%
7	ill at	11	1.51%
8	pleased at	11	1.51%
9	available at	11	1.51%
10	better at	10	1.37%
11	amazed at	9	1.24%

Figure 5.2: List of lexical items produced by the ‘frequency breakdown’ function

The list of each query is then manually examined to make sure that all the lexical items included satisfy the criteria mentioned above. To start with, lexical items should instantiate grammar patterns. Native speakers would be able to tell from Figure 5.2 that not all the *adjective + at* sequences instantiate the pattern **ADJ at**; for example, they can tell that *at* in *present at*, *close at* probably belongs to phrases such as *at + TIME / PLACE / EVENT*, other than to the complementation pattern. This can be confirmed by looking at the extended context, as in instances like *Prince himself was present at the opening* (GSX 1576), *they had been so close at first* (ANF 648). As far as the current study is concerned, sequences like *present at*, *close at* have to be excluded because they do not instantiate the pattern **ADJ at**.

5.2.2 Criterion 2: items have to be evaluative

Generally speaking, language is used to describe and evaluate things or phenomena we encounter in the world, which can be roughly characterised as the descriptive function

and the evaluative function (cf. ‘representative vs. expressive’ function in Bühler (1934), ‘descriptive vs. expressive’ function in Lyons (1977), ‘ideational vs. interpersonal’ function in Halliday and Matthiessen (2004)). The descriptive function is concerned with construing what is going on in the world, and the evaluative function is concerned with expressing our opinion towards proposals or propositions. Due to the fact that both descriptive and evaluative lexical items can instantiate grammar patterns, it is thus necessary to make a distinction between descriptive and evaluative lexical items. This can be illustrated with concordance lines 1 – 6 below.

1	BIY 1132	Michael was	<i>busy with</i>	his review, frequently ...
2	CEW 407	His mother was very	<i>ill with</i>	a fever, and that all ...
3	ECM 1835	she was	<i>pregnant with</i>	Prince Harry
4	CDM 1618	Miss Louise was always	<i>short with</i>	me
5	C9U 930	Yates was	<i>happy with</i>	the possible casting
6	AT1 783	The band were	<i>pleased with</i>	the excellent treatment

These instances are taken from the hits returned by the query of the sequence *adjective + with*. It shows clearly that concordance lines 1 – 3 are descriptions of facts⁶ and only 4 – 6 construe evaluation. In other words, the first three instances are descriptive, which means that they do not satisfy the second criterion that items have to be evaluative. In consequence, lexical items (*busy with*, *ill with*, *pregnant with*) in instances 1 – 3 do not qualify for further analysis. Lexical items in the latter three instances are evaluative in the sense that they either express an opinion about how someone behaves (instance 4) or attribute an emotional reaction to someone (instances 5 and 6) (Thompson & Hunston 2000: 5; Alba-Juez & Thompson 2014: 13). Lexical items alike (e.g. *short with*, *pleased with*) are included in the current investigation.

This shows that not all lexical items instantiating a complementation pattern are evaluative (cf. Hunston & Sinclair 2000: 96). The point is that this criterion, i.e. items have to express evaluative meanings, is necessary so as to ensure that only evaluative lexical items are included for further analysis.

5.2.3 Criterion 3: frequency \geq 2 occurrences

Moreover, taking into consideration the analogical or creative uses of a lexical item (Hunston & Francis 2000: 95-98) and the massive number of lexical items that can instantiate a given pattern, it is practical to limit the lexical items to those which occur

⁶ It is possible that they might be characterised as ‘invoked evaluation’ in some particular contexts though.

at least twice in the CoB. This explains why lexical items like *terrified at* (1 occurrence), *incompetent at* (1 occurrence) and *skilful at* (1 occurrence) are excluded, though they do instantiate the pattern **ADJ at** and express evaluative meanings.

Summing up, lexical items which satisfy the criteria, i.e. instantiate a given adjective complementation pattern, express evaluative meanings and occur at least twice in the CoB, are included for further study; otherwise they are excluded. These criteria guide the corpus analysis below.

5.3 Identifying and Profiling the Lexical Items

It has been noted that the patterns in this study are confined to adjective complementation patterns, i.e. patterns where adjectives are complemented by prepositions or non/finite clauses (see Section 2.2.2.3). For the sake of systematicity, these patterns are analysed in this order: patterns that are complemented with prepositions (e.g. *at*, *about*, *for*) are analysed first and then patterns complemented with non/finite clause (*to-inf.*, *that*), which is followed by a brief discussion of those patterns which occur rarely in the CoB. It is perhaps worth pointing out that adjective patterns beginning with an introductory *it* (e.g. ***it v-link ADJ for/to***) will not be discussed, as these patterns have already been extensively examined in Bednarek (2009a) and Hunston (2011)

As introduced in Section 2.3.2, the ATTITUDE system is further divided into AFFECT, JUDGEMENT and APPRECIATION. Each of the three subsystems deals with one particular semantic area. To recapitulate, AFFECT deals with the construal of emotional reaction, JUDGEMENT with the ethical evaluation of human character (including the emotional types of personality) and behaviour, and APPRECIATION with the aesthetic evaluation of products and processes (see Section 2.3.2). Since adjectives are the prototypical realisations of evaluative meanings (Martin & White 2005: 58; Hunston 2011: 129), it is reasonable to speculate that lexical items occurring in adjective patterns may realise either Affect, or Judgement or Appreciation (see Appendix 1). This indicates that it is necessary to first group the lexical items in terms of Attitude (i.e. Affect, Judgement and Appreciation). The results will provide corpus data 1) to address the question of to what extent adjective complementation patterns can be used to distinguish Affect, Judgement and Appreciation, and 2) to further explore the association between (adjective complementation) patterns and (attitudinal) meanings (see Chapter 6).

5.3.1 ADJ at

The query of the sequence *adjective + at* returns 728 hits. The ‘frequency breakdown’ function shows that there are 110 types (out of the total 336) which occur more than once in the CoB. It needs to be pointed out that only the types of lexical items (e.g. *good at*, *surprised at* as shown in Figure 5.2 above) are considered because not all instances of a given type (i.e. tokens) may necessarily instantiate a pattern. For example, though the type *good at* normally instantiates the pattern **ADJ at**, *good at* in *He was good at school* (CL2 240) does not instantiate the pattern; similarly, though *famous for* normally instantiates the pattern **ADJ for**, *famous for* in *everyone can be famous for 15 minutes* (ADR 1221) does not instantiate the pattern either.

Based on the concordance analysis, I identified 45 lexical items which satisfy the criteria discussed above. These lexical items are classified in terms of Attitude and the number of the types of lexical items in each class is counted. The result is shown in Table 5.1 below.

Table 5.1: The distribution of lexical items occurring in **ADJ at** into ATTITUDE

ADJ at			
Affect		Judgement	
No.	%	No.	%
34	75.56%	11	24.44%
<i>surprised at, happy at, pleased at, amazed at, shocked at, disappointed at, amused at, upset at, excited at, furious at, alarmed at, unhappy at, delighted at, angry at, nervous at, horrified at, embarrassed at, concerned at, aghast at, distressed at, appalled at, astonished at, guilty at, disgruntled at, disturbed at, aggrieved at, impressed at, glad at, elated at, dismayed at, resentful at, astounded at, scared at, overjoyed at</i>		<i>good at, adept at, bad at, excellent at, professional at, talented at, successful at, wonderful at, reasonable at, brilliant at, hopeless at</i>	

As mentioned in Section 3.2.2, Bednarek’s (2009a: 171) analysis suggests that Judgement and Appreciation share all the patterns where adjectives are complemented by prepositions, which leads her to the conclusion that adjective complementation (or grammar) patterns cannot be used to differentiate opinion lexis. However, the analysis above shows that the pattern **ADJ at** is used to express Affect and Judgement, but not Appreciation⁷, which seems to suggest that this pattern might be of some use in

⁷ Instances like *the school was very good at cricket* (A68 218) are not interpreted as *something is good at something*, i.e. Appreciation in terms of Appraisal, because it is plausible to argue that *the school* is used figuratively and it actually refers to *the members of the school team*.

differentiating opinion lexis, i.e. Judgement lexis from Appreciation ones.

Nevertheless, it has to be noted that the analysis is performed in the corpus compiled of biographical discourse which, presumably, is more about human subjects than things, hence, the observation drawn above would need more supportive evidence. In order to complement the analysis, Francis *et al* (1998) is used as a complementary study. Their study similarly shows that this pattern is used to indicate an emotional reaction to a situation or an idea (see Francis *et al* 1998: 428-430), which confirms the observation made above. Since Francis *et al* (1998) is based on a more general corpus (i.e. the Bank of English which contained about 250 million words at that time), it could be said that the findings of their study are of high reliability. Accordingly, it can be argued that this pattern might to some extent be helpful for distinguishing Judgement from Appreciation, though the fact that the pattern **ADJ at** can also be used to express Affect indicates that it is impossible to use this pattern to distinguish automatically all types of attitudinal lexis (i.e. Affect, Judgement and Appreciation).

What is more, Table 5.1 above shows clearly that there are more items which are used to express affective meanings than those which are used to express judgement meanings. In other words, the analysis shows that, in terms of the number of types, the pattern **ADJ at** is more likely to be associated with Affect than with Judgement. Interestingly, however, it is observed that the item *good at* which expresses judgement meanings occurs most frequently in this pattern and accounts for a relatively high proportion (see Figure 5.3 below).

Rank	Lexical items	No. of occurrences	Percentage
1	<i>good at</i>	53	7.28%
2	surprised at	18	2.47%
3	<i>adept at</i>	16	2.20%
4	happy at	11	1.51%
5	pleased at	11	1.51%
6	amazed at	9	1.24%
7	shocked at	9	1.24%
8	disappointed at	8	1.10%
9	amused at	7	0.96%
10	upset at	7	0.96%

Figure 5.3: Top 10 evaluative adjectives in **ADJ at**

It might be speculated that the pattern could be used to construct ‘a range of emotions + stimulus’ and ‘capacity + scope’. Because the range of emotions is so broad, no one adjective occurs particularly frequently. However, because the ‘capacity’ adjectives are more limited in number, especially those which can be complemented with *at*-phrase, and *good at* probably is one of the core vocabularies. This explains why *good at* comes at the top of the list.

Moreover, it is observed that all the lexical items associated with judgement realise Judgement: Capacity. This could have at least two implications. Firstly, this suggests that the pattern **ADJ at** might be helpful for distinguishing Capacity from other Judgement categories. The second one is closely related to the first one, that is, this may point to the distinctiveness of Capacity, because there is (at least) one particular language form that frequently realises this meaning category. These aspects will be further discussed in Section 6.2.2.

5.3.2 ADJ about

The query of the sequence *adjective + about* returns 640 hits. With the ‘frequency breakdown’ function, it shows that there are 90 lexical items occurring at least two times. Based on the concordance analysis, I identified 71 lexical items which are further classified into the ATTITUDE system. The distribution of these lexical items in terms of Attitude is presented in Table 5.2 below.

Table 5.2: The distribution of lexical items occurring in **ADJ about** into ATTITUDE

ADJ about			
Affect		Judgement	
No.	%	No.	%
39	54.93%	32	45.07%
<i>concerned about, worried about, enthusiastic about, sorry about, excited about, nervous about, unhappy about, guilty about, happy about, apprehensive about, anxious about, uneasy about, pleased about, upset about, sceptical about, sad about, sure about, curious about, uncertain about, unconcerned about, unsure about, certain about, ambivalent about, depressed about, dubious about, embarrassed about, angry about, doubtful about, annoyed about, hesitant about, apologetic about, puzzled about, good about, critical about, furious about, sanguine about, positive about, crazy about, mad about</i>		<i>careful about, right about, serious about, passionate about, obsessive about, optimistic about, sentimental about, open about, reticent about, confident about, scathing about, particular about, naïve about, nice about, vague about, brave about, knowledgeable about, complimentary about, modest about, ignorant about, dismissive about, firm about, honest about, solicitous about, sensible about, outspoken about, clueless about, specific about, rude about, fussy about, equivocal about, frank about</i>	

It shows that, like the pattern **ADJ at**, this pattern is also only used to express Affect and Judgement in the CoB, but not Appreciation, which again suggests that some adjective complementation patterns might be of some use in making distinctions between opinion lexis, i.e. between Judgement and Appreciation ones. However, more evidence would be needed to support that general observation, because the analysis is based on a corpus compiled of one particular text type, as noted in Section 5.3.1 above.

Supportive evidence is again drawn from Francis *et al* (1998). Their study suggests that this pattern is used to indicate how someone feels / thinks / behaves / talks (see Francis *et al* 1998: 412-422). In terms of appraisal, this means that this pattern is associated with 1) the construal of human feelings (i.e. Affect), and 2) the ethical evaluation of human behaviour and/or character (i.e. Judgement). This largely supports the observation made above that the pattern **ADJ about** is not used to express appreciating meanings, because Appreciation is concerned with products and processes other than human beings.

The analyses of the first two patterns suggest that there are some distinct patterns wherein one particular type of attitudinal lexis do not (or cannot) occur. This raises a general question: how many such patterns, i.e. patterns which can only be used to express one type of opinion lexis, are there. The exploration of this question could provide some insights into the issue of whether grammar patterns can be used as a diagnostic to distinguish types of Attitude, in particular to distinguish Judgement from Appreciation. Further, this suggests that the issue concerning patterns as a diagnostic could be addressed in two ways. One is to explore whether specific sub-types of attitudinal lexis (affective, judging, appreciating) occur only in certain distinct patterns, as Bednarek (2009a) does, and the other is to explore whether there are some patterns in which specific sub-types of attitudinal lexis cannot occur. The present study employs the latter to address this issue (see Section 6.2.1 for a detailed discussion).

5.3.3 ADJ by

The query of the sequence *adjective + by* returns 784 hits. With the ‘frequency breakdown’ function, it shows that there are 109 types occurring twice or more. Through the concordance analysis, I identified 55 lexical items which satisfy the criteria set above. These lexical items are grouped into Affect, Judgement and Appreciation accordingly; and the number of the items in each class is counted. The result is presented in Table 5.3 below.

Table 5.3: The distribution of lexical items occurring in **ADJ by** into ATTITUDE

ADJ by			
Affect		Appreciation	
No.	%	No.	%
52	94.55%	3	5.45%
<i>impressed by, surprised by, excited by, embarrassed by, amused by, shocked by, relieved by, worried by, obsessed by, bewildered by, upset by, depressed by, thrilled by, appalled by, puzzled by, intrigued by, alarmed by, astonished by, unaffected by, stunned by, outraged by, pleased by, disappointed by, delighted by, horrified by, startled by, unmoved by, distressed by, nonplussed by, frightened by, amazed by, bored by, satisfied by, elated by, unperturbed by, terrified by, disgusted by, disconcerted by, displeased by, interested by, bemused by, concerned by, confused by, scared by, thunderstruck by, unimpressed by, exhilarated by, nervous by, staggered by, dismayed by, beloved by, jaundiced by</i>		<i>complicated by, unhampered by, undeterred by</i>	

It is evident that this pattern is predominantly used to construe emotional reaction and that it is not (or cannot be) used to make a judgement about a person's behaviour or character. The reasons might be speculated as follows. Firstly, there are quite a lot of emotion words which are in the form of past participle (e.g. *pleased, amused, surprised*), and only past participles can be followed by *by*-phrase (cf. Osmond 1997: 112; see also Dirven (1997) and Radden (1998) for more work on how emotion terms co-occur with prepositional phrases). 'Pure' adjectives cannot be complemented by *by*-phrase because the *by*-phrase requires some traces of verbal function (Osmond 1997). Secondly, an adjective complementation pattern is a configuration which links different elements involved in a semantic domain. For instance, an adjective complementation pattern associated with Affect typically enacts a configuration of 'Emoter + Emotion + Trigger' (see Bednarek 2008a: 65-99), whereas an adjective complementation pattern associated with Judgement typically forms a configuration of 'Target + Hinge + Judgement + Scope' (see Section 7.4). Presumably, the *by*-phrase often, if not always, indicates the Trigger of an emotional reaction but not the Scope of a judgement.

5.3.4 ADJ for

The query of the sequence *adjective + for* returns 1996 hits. By examining manually all the examples, I identified 100 lexical items which satisfy the criteria set above. What is noteworthy is that there are some items which are shared by Judgement and Appreciation. That is to say, some lexical items (e.g. *famous for, notable for*) can realise both Judgement and Appreciation, depending on the attitudinal target, i.e. the entity that

is being evaluated. These lexical items, marked in bold face, are grouped into both categories and counted respectively. This applies to the corpus analysis throughout.

As above, lexical items occurring in the pattern **ADJ for** are first classified in terms of Attitude, and the number of the items in each class is counted. The result is presented in Table 5.4 below.

Table 5.4: The distribution of lexical items occurring in **ADJ for** into ATTITUDE

ADJ for					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
20	20.00%	21	21.00%	59	59.00%
<i>ready for, sorry for, grateful for, hungry for, desperate for, happy for, eager for, anxious for, concerned for, unprepared for, willing for, keen for, homesick for, thankful for, ashamed for, pleased for, miserable for, frightened for, enthusiastic for, delighted for</i>		<i>suitable for, famous for, remarkable for, available for, right for, fit for, unfit for, renowned for, notable for, notorious for, ripe for, unsuitable for, eligible for, famed for, active for, slow for, conspicuous for, well-known for, stupid for, answerable for, thoughtful for</i>		<i>difficult for, good for, necessary for, suitable for, important for, famous for, remarkable for, right for, available for, bad for, essential for, ideal for, renowned for, notable for, unusual for, fine for, useful for, usual for, clear for, great for, sufficient for, notorious for, unsuitable for, ripe for, short for, strong for, convenient for, inadequate for, interesting for, embarrassing for, natural for, crucial for, famed for, significant for, valid for, appropriate for, popular for, frustrating for, valuable for, inevitable for, vital for, worrying for, wonderful for, slow for, excellent for, counterproductive for, well-known for, terrible for, awkward for, funny for, strange for, exciting for, suited for, dreadful for, formative for, adequate for, insufficient for, pleasant for, memorable for</i>	

As can be seen from Table 5.4, there are more lexical items that are associated with the evaluation of things, which indicates that this pattern is typically used to express appreciating meanings, i.e. Appreciation in terms of Appraisal. Bringing together the observation that **ADJ at** is frequently used to express Affect (see Section 5.3.1), it can be speculated that patterns may have a preference to express one particular type of (attitudinal) meanings.

More notably, this pattern exhibits the complexity of the behaviour of adjectives (see also Hunston & Sinclair 2000: 91-97; cf. Tucker 1998; Mindt 2011), which makes it difficult to apply a local grammar analysis to this pattern (see Section 3.3 for local grammar). Firstly, as shown in Table 5.4, there are some lexical items (e.g. *famous for, remarkable for, notorious for*) which can realise both Judgement and Appreciation, depending on the type of the target that is being evaluated. For example,

7	GT1 370		She was	<i>famous for</i>	her witty, outrageous remarks
8	F9U 736	The expensive fish restaurant,		<i>famous for</i>	its oysters and its excellent ...
9	J56 284		he was	<i>remarkable for</i>	his quiet voice and stable temper
10	GT0 485	But his drawings were		<i>remarkable for</i>	their acuteness of observation ...
11	GT4 126	Here he quickly became		<i>notorious for</i>	his stern management
12	AE8 526	twentieth century has become		<i>notorious for</i>	its rejections of rationality

As shown in concordance lines 7 – 12, some lexical items can be used to express different types of Attitude, depending on the attitudinal target. More specifically, lines 7, 9 and 11 are associated with Judgement because the appraised entity is a person, and lines 8, 10 and 12 with Appreciation because the appraised entity is a thing. It will be shown that this is not only true for this pattern, but also for some other patterns (see the discussion of patterns **ADJ in**, **ADJ of** and **ADJ with** below). On the one hand, this suggests that attitudinal target (i.e. the type of the entity that is being appraised) should be considered when classifying attitudinal resources (see Section 6.3.1.1 for more discussion). On the other hand, this indicates that instances where such items occur would need to be analysed differently from a local grammar perspective, depending on the type of attitudinal target, as local grammar typically works with ‘transparent and trustworthy’ functional labels (Hunston & Sinclair 2000; Butler 2004; Bednarek 2008a). This will be discussed in more detail in Section 8.2.1.

Secondly, the relationship between the adjective and the *for*-phrase is not always straightforward. For example, it is possible to interpret the prepositional phrase as limiting the scope within which the evaluation is valid; but at the same time, it is also plausible to interpret the *for*-phrase as indicating the reason for why the evaluation is made. The two functions the *for*-phrase can fulfil are termed respectively as Reason and Scope in the present study (see Section 7.4.1). The recognition of the differences between the two readings is important for the establishment of local grammars of evaluation, because different readings require different parsing. For instance, in concordance line 7, the noun phrase following the preposition *for* functions as an explanation, thus it is more plausible to parse the noun phrase as ‘Reason’; whereas when the noun phrase following the preposition *for* functions as a ‘limiter’, as *military service* in *he had been pronounced unfit for military service*, it is more reasonable to parse the noun phrase as ‘Scope’ (see Table 5.5 below).

Table 5.5(1): Parsing the *for*-phrase as Reason

Target	Hinge	Judgement	Reason
She	was	famous for	her witty, outrageous remarks

Table 5.5(2): Parsing the *for*-phrase as Scope

Target	Hinge	Judgement	Scope
he	had been pronounced	unfit for	military service

5.3.5 ADJ *in*

It is not surprising that the query of the sequence *adjective + in* returns a large number of hits (3073 in the CoB), because, apart from the fact that many adjectives can be complemented with *in*-phrase, temporal and spatial information can also be expressed by the *in*-phrase (e.g. *in earlier years, in the family*). With the ‘frequency breakdown’ function, it is observed that there are 1011 types, among which 344 types occur twice or more. Based on the concordance analysis, I identified 109 adjective types which constitute evaluative lexical items combined with *in*. These lexical items are grouped into Affect, Judgement and Appreciation; the number of the items in each class is counted. The result is shown in Table 5.6 below.

Table 5.6: The distribution of lexical items occurring in **ADJ *in*** into ATTITUDE

ADJ <i>in</i>					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
15	13.76%	64	58.72%	30	27.52%
<i>interested in, happy in, deep in, disappointed in, concerned in, secure in, uninterested in, unhappy in, nervous in, zealous in, enthusiastic in, preoccupied in, adamant in, delighted in, desperate in</i>		<i>active in, instrumental in, successful in, fortunate in, prominent in, right in, lucky in, useful in, wrong in, influential in, famous in, confident in, helpful in, firm in, remarkable in, fluent in, generous in, uncompromising in, correct in, slow in, fearless in, quick in, meticulous in, outstanding in, clever in, shy in, witty in, eminent in, gifted in, assiduous in, renowned in, proficient in, reliable in, punctilious in, cunning in, shrewd in, brilliant in, fierce in, easy-going in, genuine in, foolish in, profligate in, circumspect in, fastidious in, wise in, imaginative in, modest in, blunt in, passionate in, courageous in, stupid in, careful in, coarse in, seasoned in, conservative in, scrupulous in, scathing in, straightforward in, gentle in, naïve in, diligent in, skilled in, indefatigable in, independent in</i>		<i>important in, different in, common in, apparent in, evident in, inherent in, useful in, influential in, implicit in, effective in, rich in, invaluable in, remarkable in, interesting in, manifest in, essential in, noticeable in, orthodox in, unequalled in, diverse in, consistent in, crucial in, decisive in, precious in, obvious in, vague in, pre-eminent in, simple in, inexplicable in</i>	

This pattern, like the pattern **ADJ *for*** discussed in Section 5.3.4, is also shared by all three types of attitudinal meanings. It informs us that, on the one hand, this pattern is

of great productivity of meaning-making, but on the other hand, this pattern is probably of no diagnostic use in distinguishing different types of evaluative meanings. However, the analysis does tell us that, from a heuristic perspective, this pattern is frequently or prototypically used to express evaluative meanings associated with human beings, i.e. to make a judgement of one's character and/or behaviour. That is to say, the examination of the word-in-pattern exemplars may reveal the prototypical realisation of one particular type of attitudinal meaning. For example, Affect is frequently realised by **ADJ at/by**, Judgement by **ADJ in**, Appreciation by **ADJ for**, as shown in the discussion above. This can be regarded as one of the contributions that a detailed scrutiny of word-in-pattern exemplars can make to the literature of appraisal research.

5.3.6 ADJ of

Like the pattern **ADJ in**, the pattern **ADJ of** is also quite productive. The query of the sequence *adjective + of* returns 2969 hits. Among the 180 types which occur more than once in the CoB, 74 items qualify for further study. These lexical items are classified in terms of Attitude, and the number of the lexical items in each class is counted. The result is presented in Table 5.7 below.

Table 5.7: The distribution of lexical items occurring in **ADJ of** into ATTITUDE

ADJ of					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
30	40.54%	28	37.84%	16	21.62%
<i>aware of, fond of, proud of, afraid of, conscious of, tired of, unaware of, sure of, suspicious of, convinced of, glad of, ashamed of, frightened of, wary of, sick of, certain of, relieved of, terrified of, unsure of, nervous of, weary of, enamoured of, scared of, desirous of, fearful of, uncertain of, sceptical of, apprehensive of, resentful of, hopeful of</i>		<i>capable of, incapable of, worthy of, critical of, guilty of, jealous of, ignorant of, confident of, dismissive of, oblivious of, shy of, protective of, envious of, intolerant of, tolerant of, innocent of, mindful of, independent of, supportive of, contemptuous of, generous of, careful of, scornful of, appreciative of, impatient of, forgetful of, chary of, unworthy of</i>		<i>short of, typical of, worthy of, reminiscent of, devoid of, characteristic of, unheard of, true of, symptomatic of, independent of, symbolic of, indicative of, unworthy of, representative of, suggestive of, productive of</i>	

As can be seen from Table 5.7 above, the pattern **ADJ of** is shared by all three types of evaluative meanings, which indicates that this pattern cannot be used as a diagnostic to make distinctions between types of Attitude. Nevertheless, there are some interesting observations to be made of this pattern.

Martin and White (2005: 60) suggest that some lexis can construe both Affect and Judgement at the same time. One of the illustrative examples they give is *guilty* (see Teubert (2004) for a detailed corpus investigation of *guilty*). However, *guilty* cannot be considered as realising simultaneously Affect and Judgement when it occurs in **ADJ of**. The word *guilty* in this pattern means that someone is legally responsible for a crime or offence. In other words, *guilty* in **ADJ of** is only associated with Judgement, as shown in the concordance lines 13 – 16.

13	A7C 1005	she has been	<i>guilty of</i>	intellectual sin in failing to believe
14	G SX 162	they were both	<i>guilty of</i>	a criminal offence
15	BN3 580	In other words, he was	<i>guilty of</i>	gross snobbery
16	BN3 1344	I admit to being	<i>guilty of</i>	slapping his face, in anger

Furthermore, it is perhaps worth noting that *guilty* has different meanings when it occurs in different patterns. For example,

17	AE8 951	I feel mildly	<i>guilty about</i>	accepting such hospitality
18	AT1 1992	I feel tremendously	<i>guilty about</i>	what we did to Shaun.

As can be seen from the above instances, *guilty* in **ADJ of** has legal associations: someone is legally responsible for a crime or offence, whereas *guilty* in **ADJ about** is associated with the construal of emotion: someone is unhappy about something. In terms of appraisal, *guilty* in **ADJ of** realises Judgement whereas *guilty* in **ADJ about** realises Affect, which suggests that the exact type of Attitude an item realises may be dependent on the pattern with which it co-occurs. This can be used as a good example to show that patterns and meanings are associated.

Moreover, it is observed that the lexical item *innocent of*, the antonym of *guilty of*, also occurs in the pattern (see concordance lines 19 – 21). This supports the argument that lexical items occurring in the same pattern tend to share meaning aspects (Hunston & Francis 2000: 83).

19	FPN 239	he was	<i>innocent of</i>	the allegations
20	ART 1484	I believe The Smiths to be totally	<i>innocent of</i>	this charge.
21	CDS 185	I am	<i>innocent of</i>	this crime

It becomes clear now that patterns and meanings are associated. In terms of appraisal, patterns may even affect the nature of the evaluative meaning, i.e. the type of Attitude, an item expresses (see Section 6.3.2.2 for more discussion). In addition, this also explains why lexical items, other than words in isolation (as Martin & White (2005) do), are being discussed and profiled in the present study (also see Section 4.4.2).

5.3.7 ADJ to n

It is worth mentioning how the query script of this pattern is composed, because the preposition *to* and the infinitive *to* have the same form. They are tagged differently in BNC: the preposition *to* is tagged as ‘PRP’ and the infinitive *to* is tagged as ‘TO0’, which makes it possible to distinguish them automatically (though there might be tagging errors). Accordingly, the query script for searching sequences instantiating the pattern **ADJ to n** can be composed as ‘_AJ* to_PRP’, and the query script for searching sequences instantiating the pattern **ADJ to-inf.** can be composed as ‘_AJ* to_TO0’.

The query of ‘_AJ* to_PRP’ returns 2520 hits. With the ‘frequency breakdown’ function, it shows that there are 509 lexical items, among which 216 items occur twice or more. Based on the concordance analysis, I identified 135 lexical items which satisfy the criteria. These items are grouped into Affect, Judgement and Appreciation, and the number of the items in each class is counted. The result is shown in Table 5.8 below.

Table 5.8: The distribution of lexical items occurring in **ADJ to n** into ATTITUDE

ADJ to n					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
9	6.67%	43	31.85%	83	61.48%
<i>devoted to, grateful to, impervious to, indebted to, averse to, attached to, partial to, thankful to, disposed to</i>		<i>open to, loyal to, acceptable to, kind to, sympathetic to, true to, new to, hostile to, rude to, oblivious to, sensitive to, good to, faithful to, indifferent to, responsive to, vulnerable to, generous to, fair to, nice to, special to, immune to, unsuited to, responsible to, receptive to, friendly to, attentive to, polite to, wonderful to, blind to, amenable to, accountable to, answerable to, unsympathetic to, unkind to, adaptable to, subordinate to, unfaithful to, sweet to, obedient to, gracious to, antagonistic to, obliging to, disobedient to</i>		<i>similar to, important to, available to, acceptable to, central to, essential to, familiar to, obvious to, relevant to, crucial to, different to, strange to, akin to, equal to, unacceptable to, useful to, good to, accessible to, preferable to, comparable to, vulnerable to, indispensable to, peculiar to, equivalent to, necessary to, apparent to, helpful to, real to, interesting to, appropriate to, vital to, offensive to, applicable to, irrelevant to, favourable to, secondary to, dear to, unique to, alien to, common to, dangerous to, conducive to, identical to, basic to, unrelated to, attributable to, fatal to, pleasing to, embarrassing to, advantageous to, evident to, inappropriate to, repugnant to, precious to, valuable to, foreign to, fundamental to, trivial to, incomprehensible to, satisfactory to, inadequate to, frightening to, beholden to, convincing to, satisfying to, unintelligible to, cheap to, funny to, adequate to, agreeable to, hurtful to, frustrating to, beneficial to, exciting to, incidental to, comprehensible to, intolerable to, indigenous to, endemic to, worrying to, beautiful to, contemptible to, tantamount to</i>	

As shown above, this pattern is shared by all three types of Attitude and is predominantly used to express Appreciation. In terms of using patterns as a diagnostic, this means that this pattern would not be helpful for making distinctions between types of attitudinal meanings. In terms of using patterns as a heuristic, this indicates that it is appreciating lexis that typically occur in this pattern.

More notably, this pattern offers some insights into the local grammar analysis of Judgement. To be specific, just as adjective complementation patterns associated with Affect can construct more than one semantic configuration (e.g. ‘Emoter + Emotion + Trigger’ in *General Haig was wedded to his profession*, ‘Emotion + Emoter’ in *a frightened man bared his back which was a mass of scabs and bruises*; see Bednarek 2008a: 65-99), there are also more than one semantic configuration for Judgement (also see Section 5.3.4). For example, noun phrases complementing the pattern **ADJ to n** do not always indicate the ‘Scope’, as in instances *This able and likeable man was admirably adaptable to circumstances* (ASC 263), *he remained faithful to the technique of Impressionism* (GTH 389); instead, noun phrases complementing this pattern may also indicate an affected third party, as shown in concordance lines 22 – 26 below.

22	A68 256	Ramsey was very	<i>rude to</i>	him in the debate
23	GT6 694	He was equally	<i>generous to</i>	Cuthbert, pressing him to ...
24	CDG 1048	Everyone was truly	<i>wonderful to</i>	me
25	EDA 1055	he was always	<i>fair to</i>	us
26	B1Y 660	They were both very	<i>good to</i>	her, amusing her and ...

Generally speaking, lexical items in concordance lines 22 – 26 evaluate the subject’s behaviour and the noun phrases complementing the pattern **ADJ to n** indicate a third party to whom the behaviour is directed at. Accordingly, it is reasonable to propose the term ‘Patient’ to analyse complements like these (cf. ‘person affected’ in Hunston & Sinclair 2000: 99), and to propose the semantic configuration of ‘Target + Hinge + Judgement + Patient’ for the local grammar of Judgement (see Section 7.4 for more discussion).

5.3.8 ADJ towards

The query of the sequence *adjective + towards* does not return too many hits. The query only returns 39 instances. However, since this pattern is always used to express evaluative meanings associated with human beings (i.e. either Affect or Judgement in terms of appraisal), all of them are examined. Based on the concordance analysis, 15 lexical items are identified for further study.

According to Francis *et al* (1998: 472-473), adjectives occurring in this pattern indicate (positive or negative) emotional response towards someone or something. This may, in terms of Appraisal, imply that adjectives in this pattern realise Affect. However, it seems to be implausible to classify these lexical items as affective lexis, since it does not make much sense to map the functional element ‘Emoter’ (i.e. the one to whom the emotion is attributed, see Bednarek 2008a: 70) on to the grammatical subjects of these instances. On the contrary, it is more plausible to interpret the grammatical subject in each instance as the participant whose behaviour is being judged. This argument will become clearer when looking at the concordance lines:

27	A61 576	he and his family are being	<i>friendly towards</i>	me
28	ANF 1500	and Modigliani was	<i>considerate towards</i>	the older woman
29	F9U 1760	He became very	<i>protective towards</i>	Minton and was quick to...
30	J0W 830	He wasn't openly	<i>hostile towards</i>	her, but I think...
31	GT9 369	Hilaire Belloc, often	<i>ambivalent towards</i>	the Jewish people, went...
32	GTH 346	He was	<i>conciliatory towards</i>	the Lords over jurisdiction...
33	HXU 1326	He was	<i>contemptuous towards</i>	the United Nations, critical
34	EVN 1036	we were too	<i>slanted towards</i>	Wales
35	EVB 1375	potential for being more	<i>sensitive towards</i>	the feelings of others...
36	ALK 62	the following... being	<i>disrespectful towards</i>	his parents
37	GSX 1140	he was yet stubborn and	<i>pugnacious towards</i>	those with whom he
38	BN3 827	They had been so	<i>kind towards</i>	him
39	GT8 995	she could be	<i>severe towards</i>	social failings, such as...
40	C9U 831	He had always been ...	<i>solicitous towards</i>	any small-part player...
41	CBN 646	He...was endlessly kind and	<i>thoughtful towards</i>	it
42	EFX 639	He would be most	<i>affectionate towards</i>	her and then, for no...

It is clear that all of the lexical items, except for *affectionate towards*, construe the way the participant behaves towards someone or something. In other words, most of these instances are associated with the evaluation of the participant's behaviour, which means that they realise Judgement in terms of appraisal. The grouping of these items in terms of appraisal is shown in Table 5.9 below.

Table 5.9: The distribution of lexical items occurring in **ADJ towards** into ATTITUDE

ADJ towards			
Affect		Judgement	
No.	%	No.	%
1	6.67%	14	93.33%
<i>affectionate towards</i>		<i>friendly towards, considerate towards, protective towards, hostile towards, ambivalent towards, conciliatory towards, contemptuous towards, slanted towards, disrespectful towards, pugnacious towards, kind towards, severe towards, thoughtful towards, solicitous towards</i>	

The description and classification of the lexical items occurring in this pattern here is different from that given in Francis *et al* (1998: 472-473). This is mainly because the classification here is informed by a semantic theory, i.e. the appraisal theory (cf. Teubert 2007; Hunston 2011: 123; Moreno-Ortiz & Pérez-Hernández 2014: 96).

More notably, this again shows that some adjective complementation patterns (e.g. **ADJ about/at/by**) may only co-occur with one type of opinion lexis, i.e. either Judgement or Appreciation, which further suggests that adjectives complemented by different prepositions might be of some use in differentiating opinion lexis (cf. Bednarek 2009a). I will return to this issue in Section 6.2.1.

5.3.9 ADJ with

The query of the sequence *adjective + with* returns 1378 hits. With the ‘frequency breakdown’ function, it shows that there are 141 types occurring at least twice in the CoB. Based on the concordance analysis, I identified 74 lexical items which instantiate the pattern and express evaluative meanings. These lexical items are classified into the ATTITUDE system, and the number of the items in each class is counted. The result is presented in Table 5.10 below.

Table 5.10: The distribution of lexical items occurring in **ADJ with** into ATTITUDE

ADJ with					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
37	46.83%	24	31.65%	13	21.52%
<i>concerned with, involved with, pleased with, happy with, content with, impressed with, preoccupied with, satisfied with, obsessed with, delighted with, bored with, confused with, angry with, comfortable with, dissatisfied with, infatuated with, disenchanted with, intimate with, thrilled with, furious with, disappointed with, besotted with, unhappy with, stuck with, disgusted with, relaxed with, mad with, annoyed with, disillusioned with, discontented with, firm with, uneasy with, enchanted with, delirious with, frantic with, amused with, speechless with</i>		<i>popular with, familiar with, friendly with, good with, impatient with, unpopular with, generous with, conversant with, careful with, patient with, ready with, gentle with, skilled with, unfamiliar with, clever with, honest with, strict with, expert with, shy with, fierce with, tough with, wonderful with, indulgent with, short with</i>		<i>complete with, popular with, consistent with, synonymous with, incompatible with, compatible with, unpopular with, comparable with, identical with, inconsistent with, similar with, beautiful with, economical with</i>	

As can be seen from Table 5.10, this pattern is shared by all three types of attitudinal meanings, and it is relatively more frequently used to express affective meaning than

the other two types of evaluative meanings. This is because, as Osmond (1997: 114) notes, both adjectives and past participles can be complemented by *with*-phrase. Since it has already been discussed that there are a lot of emotion terms which are in the form of the past participle (see the discussion of **ADJ by** in Section 5.3.3 above), it is then not surprising that this pattern is more frequently used to construe emotional reactions than other types of attitudinal meanings.

In terms of local grammar analysis, it is observed that this pattern further exemplifies the semantic configuration of ‘Target + Hinge + Judgement + Patient’ (see Section 5.3.7); for example,

43	ADP 2034		he is very	<i>good with</i>	the crew
44	GTA 780		he could be	<i>gentle with</i>	students; a thoughtless ...
45	CDM 1618	Miss Louise was always		<i>short with</i>	me when anyone called
46	AOP 556		He ... and is	<i>friendly with</i>	everyone
47	JOW 727		He was always	<i>wonderful with</i>	my kids

The noun phrases complementing the pattern (e.g. *the crew*, *students*, *my kids*) indicate a third party who is affected by the subject’s behaviour, as shown in concordance lines 43 – 47. From a local grammar perspective, it is more plausible to map ‘Patient’ than to map ‘Scope’ on to the corresponding pattern elements, i.e. the noun phrase complementing the pattern.

Of particular interest is that there is one lexical item – *good with*, which can be used to express different types of Judgement, depending on whether the noun phrase complementing the pattern refers to a human being or a thing. Some concordance lines are given below,

48	ADP 2034		he is very	<i>good with</i>	the crew
49	CH8 488		but she’s	<i>good with</i>	the commoner stuff
50	BN6 1342		I’m not very	<i>good with</i>	things like that
51	G39 493	Neddy Fawcett, ..., was very		<i>good with</i>	mechanical things and ...

The general observation is that *good with* realises Propriety when the referent of the noun phrase complementing the pattern indicates a human being, as in concordance lines 48 – 49, and that *good with* realises Capacity when the referent of the noun phrase indicates a thing, as in concordance lines 50 – 51. The upshot of the discussion is that types of referent in the complementation pattern should also be taken into consideration when developing local grammars of evaluation, though such cases only occur in a few patterns (e.g. **ADJ to n**, **ADJ towards**). This will be discussed in more detail in Section 8.2.2.

5.3.10 ADJ *to-inf.*

The patterns to be discussed below are those complemented with non/finite clause. The first pattern is **ADJ *to-inf.*** which returns 5984 hits in the CoB. Among all the lexical items which occur more than twice, 97 are identified for further analysis. These lexical items are subsequently grouped into Affect, Judgement and Appreciation, and the number of the items in each class is counted. The result is shown in Table 5.11 below.

Table 5.11: The distribution of lexical items occurring in **ADJ *to-inf.*** into ATTITUDE

ADJ <i>to-inf.</i>					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
62	63.92%	23	23.71%	12	12.37%
<i>prepared to, ready to, willing to, glad to, happy to, anxious to, pleased to, keen to, eager to, reluctant to, surprised to, delighted to, determined to, afraid to, inclined to, content to, sorry to, unwilling to, proud to, concerned to, desperate to, ashamed to, sad to, wont to, sure to, relieved to, interested to, shocked to, astonished to, scared to, privileged to, thrilled to, curious to, excited to, disinclined to, tired to, certain to, amazed to, amused to, embarrassed to, loath to, grateful to, thankful to, frightened to, horrified to, intrigued to, satisfied to, disposed to, nervous to, startled to, terrified to, upset to, stunned to, astounded to, ardent to, dismayed to, impressed to, overjoyed to, distressed to, disappointed to, hesitant to, exhilarated to</i>		<i>able to, unable to, free to, quick to, right to, fortunate to, available to, lucky to, careful to, wrong to, slow to, fit to, powerless to, impatient to, unfit to, foolish to, unwise to, eligible to, naive to, correct to, unavailable to, swift to, ill-advised to</i>		<i>sufficient to, available to, enjoyable to, useful to, fun to, expensive to, insufficient to, difficult to, easy to, hard to, delightful to, uncomfortable to</i>	

Like the pattern **ADJ *to n*** (see Section 5.3.7), this pattern is shared by all three types of Attitude and is predominantly associated with one particular type of Attitude, i.e. Affect, as shown in Table 5. 11 above. In terms of using patterns as a diagnostic, this indicates that this pattern cannot be used to make distinctions between types of attitudinal meanings. However, in terms of using patterns as a heuristic, the analysis shows that this pattern is frequently used to construe emotion, and relatively infrequently used to express appreciating meanings. This again confirms that the examination of (adjective-) word-in-pattern exemplars can reveal the prototypical use of one particular pattern in terms of the realisation of attitudinal meanings.

5.3.11 ADJ *that*

The query of the sequence *adjective + that* returns 1814 hits. With the ‘frequency

breakdown' function, it is shown that there are 159 types which occur at least twice in the CoB. Based on the concordance analysis, 49 lexical items which satisfy the criteria are identified for further study. These items which qualify for further analysis are then classified in terms of Attitude; the number of lexical items in each class is counted. The result is presented in Table 5.12 below.

Table 5.12: The distribution of lexical items occurring in **ADJ that** into ATTITUDE

ADJ that			
Affect		Judgement	
No.	%	No.	%
46	93.88%	3	6.12%
<i>sure that, aware that, convinced that, certain that, glad that, concerned that, worried that, afraid that, conscious that, anxious that, pleased that, adamant that, unaware that, happy that, satisfied that, surprised that, disappointed that, amazed that, grateful that, sorry that, terrified that, angry that, insistent that, relieved that, thankful that, emphatic that, proud that, astonished that, nervous that, thrilled that, upset that, determined that, fearful that, unhappy that, eager that, ashamed that, assured that, unconcerned that, amused that, sceptical that, horrified that, hopeful that, apprehensive that, frustrated that, delighted that, frightened that</i>		<i>confident that, careful that, optimistic that</i>	

As shown in Table 5.12, this pattern is only used to express Affect and Judgement, but not Appreciation, which is consistent with the observation made by Francis *et al* (1998: 400-403). This is relatively easy to explain. Instances of which the pattern **ADJ that** is a part are similar to what is termed 'Mental Process' or 'Verbal Process' in Systemic Functional Linguistics (SFL; see Halliday & Matthiessen 2004). These transitivity processes require a conscious participant as its grammatical subject which roughly corresponds to the Emoter or Target in appraisal expressions. As noted in Section 2.3.2, instances associated with Affect and Judgement normally require a conscious participant as the grammatical subjects whereas instances associated with Appreciation do not, which explains why this pattern is not used to express appreciating meanings.

What is more, it is worth noting that the analysis again shows that a pattern might be predominantly used to express one particular type of attitudinal meaning (see also Hunston 2011: 128-133), which may not be revealed without a detailed scrutiny of word-in-pattern exemplars from a corpus linguistic perspective. This is one of the contributions that an extensive investigation of adjective complementation (or grammar) patterns can make to the literature of appraisal research, as noted above (see Section 5.3.5 and 5.3.10).

5.3.12 Other Patterns

Apart from the adjective complementation patterns analysed above, there are 9 other patterns which have not been discussed yet. They are **ADJ as to wh**, **ADJ against**, **ADJ over**, **ADJ between**, **ADJ as**, **ADJ on**, **ADJ from**, **ADJ wh** and **ADJ -ing** (see Francis *et al* 1998 for a detailed exemplification of these patterns). In general, they occur rarely in the CoB, except for the following two patterns **ADJ on** and **ADJ from** which occur relatively frequently. I examined the items occurring in these two adjective patterns and classified them in terms of Attitude. The results are shown in Table 5.13 and Table 5.14 below.

Table 5.13: The distribution of lexical items occurring in **ADJ on** into ATTITUDE

ADJ on					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
3	33.33%	5	55.56%	1	11.11%
<i>keen on, hell-bent on, intent on</i>		<i>dependent on, short on, hard on, right on, intransigent on</i>		<i>dependent on</i>	

Table 5.14: The distribution of lexical items occurring in **ADJ from** into ATTITUDE

ADJ from					
Affect		Judgement		Appreciation	
No.	%	No.	%	No.	%
3	33.33%	2	22.22%	4	44.45%
<i>remote from, detached from, tired from</i>		<i>indistinguishable from, immune from</i>		<i>different from, indistinguishable from, distinct from, inseparable from</i>	

These patterns will not be further discussed in the present study, partly because they do not occur very frequently, and partly because these patterns are shared by all three types of Attitude, which indicates that a further analysis would not yield any insights into the issue concerning whether or not patterns can be used as a diagnostic to distinguish types of attitudes.

5.4 More Discussion on the Corpus Analysis

5.4.1 Patterns and attitudinal meanings

Based on the analysis above, I produced Table 5.15 and Figure 5.4 (see below) which give an overview of the association between adjective complementation patterns and attitudinal meanings.

Table 5.15: A summary of the association between adjective complementation patterns and attitudinal meanings

Category Pattern	Affect		Judgement		Appreciation	
	No.	%	No.	%	No.	%
ADJ at	34	75.56	11	24.44	×	
ADJ about	39	54.93	32	45.07	×	
ADJ by	52	94.55	×		3	5.45
ADJ for	20	20.00	21	21.00	59	59.00
ADJ in	15	13.76	64	58.72	30	27.52
ADJ of	30	40.54	28	37.84	16	21.62
ADJ to n	9	6.67	43	31.85	83	61.48
ADJ towards	1	6.67	14	93.33	×	
ADJ with	37	46.83	24	31.65	13	21.52
ADJ to-inf.	62	63.92	23	23.71	12	12.37
ADJ that	46	93.88	3	6.12	×	

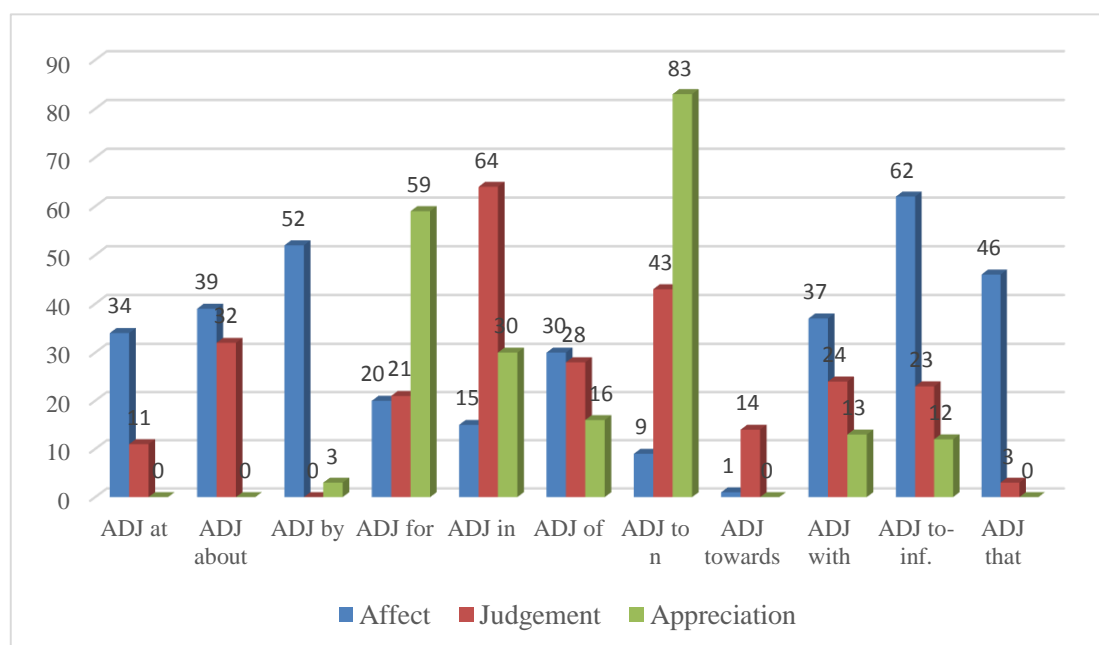


Figure 5.4: An overview of the association between adjective complementation patterns and attitudinal meanings

Clearly, the analysis shows that patterns and (evaluative) meanings are associated. This is not new though, as has been extensively discussed in many previous studies (e.g. Hunston & Francis 2000; Hunston & Sinclair 2000; Hunston 2003a, 2011; Bednarek 2008a, 2009a). However, the detailed examination of how adjective-in-pattern exemplars are distributed within ATTITUDE offers some fresh insights into the association between patterns and attitudinal meanings.

To start with, the analysis suggests that patterns might be predominantly used or have a preference to express one particular type of attitudinal meanings. For example, patterns like **ADJ by** and **ADJ that** are typically used to express Affect, pattern **ADJ in** is more frequently used to express Judgement, and patterns like **ADJ for** and **ADJ to n** are typically used to express Appreciation, as shown in Table 5.15 and Figure 5.4 above.

Moreover, the analysis also shows that there are more adjective-in-pattern exemplars which are associated with Affect than those associated with Judgement and Appreciation respectively, as shown in Figure 5.5 below. In terms of the number of types associated with each type of Attitude, it can be said that Affect is more frequently realised by adjective complementation patterns than is Judgement, and that Judgement is more frequently realised by adjective complementation patterns than is Appreciation. In other words, this suggests that some attitudinal meanings are more likely to be expressed by adjective complementation patterns than others. The two observations further support the argument that patterns and meanings are associated.

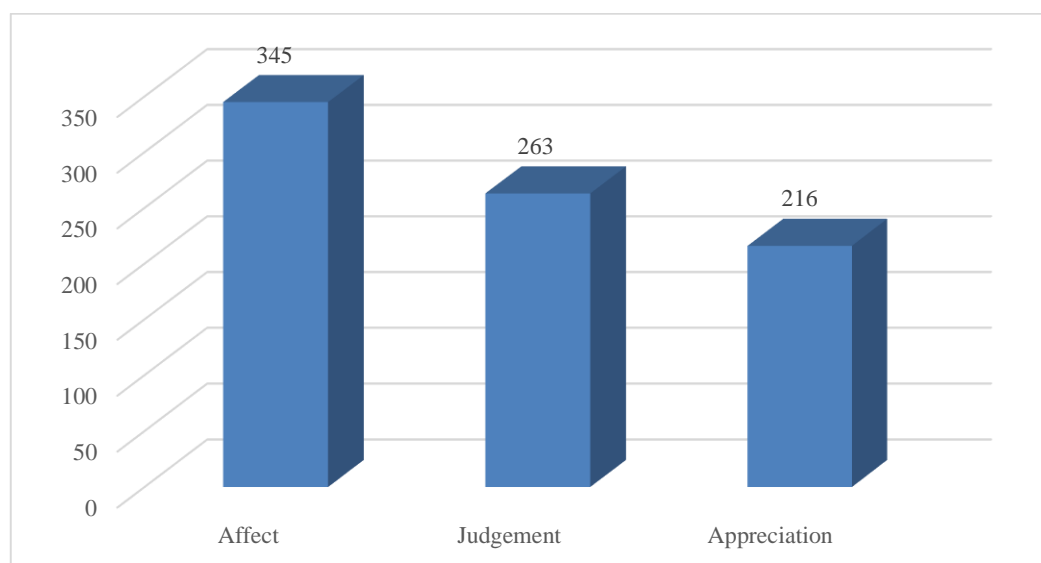


Figure 5.5: The distribution of lexical items into ATTITUDE

Lastly, it is observed that there are five language patternings (i.e. **ADJ at**, **ADJ about**, **ADJ by**, **ADJ towards**, **ADJ that**) which only co-occur with one type of opinion lexis in the CoB. On the one hand, this suggests that adjective complementation patterns might be of some use in distinguishing opinion lexis, i.e. in distinguishing Judgement lexis from Appreciation ones. On the other hand, this indicates that the type of attitudinal target that is being evaluated should be considered when classifying attitudinal resources, because the distinction between the evaluation of human subjects

(i.e. Judgement) and the evaluation of things (i.e. Appreciation) is encoded in linguistic representations. This argument can also be supported with the observation that there are some items (e.g. *famous for*, *influential in*, *popular with*) which, depending on the type of attitudinal target, can realise either Judgement or Appreciation, as discussed in Section 5.3.4 above.

5.4.2 Patterns and meaning groups

The analysis above shows that the classification of items occurring in grammar patterns could be more systematic and coherent if the classification is informed by one particular semantic or grammatical theory (e.g. appraisal theory). Generally speaking, the meaning groups associated with each pattern are proposed intuitively in Francis *et al* (1996, 1998). This raises some questions, e.g. “[d]ifferent researchers or teachers may well come up with a different set of meaning groups” (Hunston & Francis 2000: 86), which have to some extent been discussed in Teubert (2007). In consequence, it is necessary to explore whether the meaning groups associated with each pattern can be proposed more consistently. According to Hunston (2011: 123), a potential way to do so is to use some semantic or grammatical theories to guide the description of language patterns.

A semantic theory can indeed inform the classification of lexical items occurring in each pattern. As shown in Section 5.3 above, evaluative items occurring in each pattern can be systematically and consistently grouped into three semantic categories, i.e. Affect, Judgement and Appreciation, with respect to the appraisal framework (though a few extra semantic categories might also be needed to cover non-evaluative lexical items). For example, items occurring in the pattern **ADJ at** can be consistently⁸ classified into Affect and Judgement; items occurring in the pattern **ADJ of** can be consistently classified into Affect, Judgement and Appreciation. This would in turn contribute to a more systematic and coherent description of the association between patterns and meanings in general.

5.4.3 Pattern, meaning and text type

What is more, it is worth mentioning that there appears to be a currently under-explored issue concerning the association between patterns and meanings. The issue is whether

⁸ By ‘consistently’, I mean that the classification of items occurring in each pattern into ATTITUDE would be relatively consistent even if different researchers are involved in this process.

the pattern-meaning association varies according to text type. The hypothesis is that the association between patterns and meanings is fixed, which means that it is the pattern that selects meaning; however, the ‘strength’ of the pattern-meaning association or the extent to which patterns and meanings are associated might vary according to the text type in which this association is examined.

It is not easy to either verify or falsify this hypothesis. However, some insights can be offered into dealing with this conundrum if we look at some particular items. As mentioned in Section 5.3.4 above, some items can be used to express both Judgement and Appreciation, depending on the type of the target (i.e. Judgement requires a *human target* whereas Appreciation a *thing target*, see Section 2.3.2). In order to address the question as to whether pattern-meaning association varies according to text types, I made a simple comparison of how the instances of five particular lexical items (*famous for*, *remarkable for*, *renowned for*, *famed for*, *notable for*) are distributed into Judgement and Appreciation in the BNC and in the CoB respectively. The proportion occupied by Judgement and Appreciation is then calculated; and the result is presented in Table 5.16 below.

Table 5.16: Data comparison between BNC and CoB

Category Lexical items	Total Occ.		Appreciation				Judgement			
	BNC	CoB	BNC		CoB		BNC		CoB	
			No.	%	No.	%	No.	%	No.	%
<i>famous for</i>	438 ⁹	24	266	51.60	5	20.83	172	48.40	19	79.17
<i>renowned for</i>	238	12	132	55.46	5	41.67	106	44.54	7	58.33
<i>notable for</i>	125	12	116	92.80	9	75.00	9	7.20	3	25.00
<i>notorious for</i>	127	7	94	74.02	2	28.57	33	25.98	5	71.43
<i>famed for</i>	108	4	71	65.74	2	50.00	37	34.26	2	50.00

It can be argued that the CoB is necessarily richer in evaluative language associated with the evaluation of human beings (i.e. Judgement) than the BNC is, because biographical discourse is more about human subjects, as noted earlier. Accordingly, it can be speculated that these items would be less frequently used to express Appreciation in the CoB than in the BNC, and that these items would be more frequently used to express Judgement in the CoB than in the BNC. This can be supported with the comparative corpus analysis, which is shown more clearly in Figure 5.6 below.

⁹ Instances which do not instantiate the pattern **ADJ for** are excluded. For example, the query of *famous for* returns 449 hits; however, there are 11 instances which are not analysed because they do not instantiate this pattern.

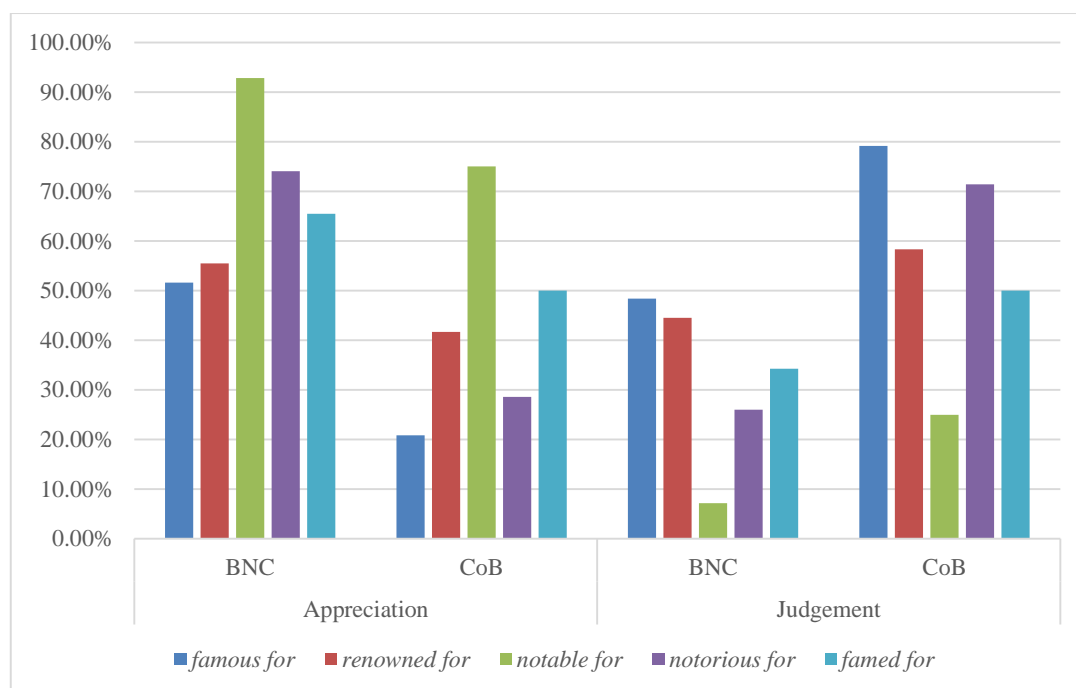


Figure 5.6: An overview of the comparison

It is evident that each column indicating the proportion occupied by appreciating instances in the CoB is lower than the one in the BNC, and that each column indicating the proportion occupied by judgement instances in the CoB is higher than the one in the BNC. In other words, these lexical items are more frequently associated with judgement meanings when they occur in the CoB than when they occur in the general corpus – BNC; and they are less frequently associated with appreciating meanings when they occur in the CoB than in the BNC. Since biography is more about human subjects, it is not surprising that items which can realise both Judgement and Appreciation are more frequently associated with Judgement in the CoB than in the general corpus BNC. In this sense, it can be argued that the analysis above has amassed some evidence to show that the strength of the pattern-meaning association may vary according to text types. However, since this is not the primary concern of the current investigation, I will not go any further into this question. It would be worthwhile to explore further this issue in the future though.

5.5 Summary

This chapter has presented a quantitative (and occasionally qualitative) analysis, focusing particularly on exploring the linkage between adjective complementation patterns and types of attitudinal meanings. It has examined the distributions of the

lexical items occurring in each adjective complementation pattern in terms of Attitude, i.e. Affect, Judgement and Appreciation. On the one hand, the examination confirms that patterns and (attitudinal) meanings are associated. For example, the patterns **ADJ by** and **ADJ that** are prototypically used to express affective meaning; Affect is more likely to be expressed by adjective complementation pattern than Judgement and Appreciation are. On the other hand, this shows that the description of grammar patterns and the classification of evaluative items occurring in specific patterns could be more systematic and consistent if the description and the classification is informed by a semantic theory.

What is more, the detailed scrutiny of adjective-in-pattern exemplars raises two critical issues. The first issue is concerned with patterns as a diagnostic. It has been shown that some adjective complementation patterns (e.g. **ADJ at**, **ADJ about**, **ADJ that**) can be used to express Affect and Judgement, but not Appreciation, which seems to suggest that adjective complementation patterns might be of some use in distinguishing opinion lexis (i.e. Judgement and Appreciation). The second one is concerned with patterns as a heuristic. The analysis shows that there are some patterns which can only co-occur with either Judgement or Appreciation, which indicates that the distinction between the evaluation of human subjects (Judgement) and the evaluation of things (Appreciation) is worth drawing because this distinction is encoded in linguistic representations. In other words, the type of target that is being evaluated should be accounted for when modelling and theorising appraisal. Besides, the fact that there are some items (e.g. *famous for*, *notorious for*) which can realise both Judgement and Appreciation, depending on the type of the target that is being appraised, also suggests that attitudinal target should be considered when describing and characterising appraisal resources. These issues will be explored in depth in the following chapter, i.e. Chapter 6.

CHAPTER 6 PATTERN AS A DIAGNOSTIC AND PATTERN AS A HEURISTIC

6.1 Introduction

It has been mentioned that the usefulness of grammar patterns in the study of evaluative language is two-fold (see Chapter 3). To recapitulate, firstly, patterns may be used as a diagnostic to differentiate types of Attitude and as a heuristic to investigate attitudinal resources, and secondly, patterns could be a good starting point for the development of local grammars of evaluation. This chapter explores the first aspect, i.e. the diagnostic and heuristic value of adjective complementation patterns.

Simply put, patterns as a diagnostic is concerned with whether pattern differentials can be used to distinguish types of attitudinal meanings; patterns as a heuristic addresses the question as to what can be revealed about appraisal if patterns are used to investigate evaluative language. Results of the corpus analysis (see Chapter 5) will be employed to explore these issues.

Correspondingly, there are in general two research questions to be addressed in this chapter. The first question is related to the diagnostic value of grammar patterns, which is further related to two aspects: 1) to what extent can adjective complementation patterns be used to differentiate attitudinal meanings, i.e. Affect, Judgement and Appreciation, and 2) to what extent can adjective complementation patterns be used to make finer distinctions, or to assess the validity of the distinctions made, between the subcategories identified in a subsystem of ATTITUDE, i.e. the JUDGEMENT system. The second question is concerned with the heuristic value of adjective complementation patterns. This means that, instead of using grammar patterns as tests to differentiate types of attitudinal meanings, patterns themselves are taken as the starting point to explore what the examination of word-in-pattern exemplars can tell us about appraisal. In addition, I will further explore the association between patterns and meanings, focusing particularly on the exploration of the correlation between adjective complementation patterns and judgement meanings.

6.2 Patterns as a Diagnostic

As discussed in Section 3.2, studies have shown that a given pattern might be used frequently to construe emotions or to express attitudes towards human beings and/or

things (e.g. Martin 2003; Martin & White 2005: 58-59; Hunston 2003a, 2011: 129-130). According to Hunston (2011: 130), this is quite reminiscent of Martin and his colleagues' classification of attitudinal meanings into Affect, Judgement and Appreciation. It is thus assumed that grammar patterns (or 'grammatical frames' in Martin and White's (2005) terminology) might be used as a diagnostic to distinguish types of attitudinal meanings.

The assumption that some grammatical frames or grammar patterns are of diagnostic value in distinguishing different types of evaluative meanings has been briefly discussed in, for example, Martin (2003) and Martin and White (2005). According to these studies, the grammatical frames (or grammar patterns) that are canonically used to express Affect are *person feels **affect** about something* and *it makes person feel **affect** that*, the grammatical frames for Judgement are *it was **judgement** for person/of person to do that* and *(for person) to do that was **judgement***, the grammatical frames for Appreciation are *person consider something **appreciation*** and *person see something as **appreciation*** (see Martin & White 2005: 58-59, italics and bold face original).

The validity of the assumption that grammar patterns might be used as a diagnostic to differentiate types of attitudinal meanings has been explored in some studies (e.g. Bednarek 2009a; Hunston 2011: 130-138). One agreement reached in these studies is that grammatical frames or grammar patterns "are of some but limited use as tests for different kinds of Appraisal" (Hunston 2011: 150). This seems to suggest that the question concerning the validity of this assumption has already been answered.

What needs to be pointed out, however, is that these studies have paid little attention to adjective complementation patterns. At the same time, it has been noted that "patterns involving dependent clauses and prepositions are all candidates for a contribution to evaluation [...], the patterns that complement adjectives almost always co-occur with evaluative meaning of some kind" (Hunston 2011: 129). In this sense, it can be argued that it is (at least) worth trying to further explore the possibility of using adjective complementation patterns as a diagnostic to make distinctions between (sub)types of Attitude.

The following section explores this possibility. It focuses on the discussion of the extent to which adjective complementation patterns can be used as a diagnostic 1) to differentiate Affect, Judgement and Appreciation (Section 6.2.1), and 2) to assess the validity of the distinctions made between the sub-types of Judgement (Section 6.2.2).

6.2.1 Patterns and the ATTITUDE systems

According to Bednarek (2009a), the question as to whether linguistic patterns can be used as a diagnostic to distinguish between types of Attitude is related to two aspects:

- Do the specific sub-types of lexis (appreciating, judging, affective) occur only in certain distinct patterns?
- Are specific patterns used to evaluate a) things/situations, or b) persons/their behaviour; or c) to attribute emotional responses to Emoters?

(Bednarek 2009a: 167)

Following Bednarek (2009a), my discussion will also focus on these two aspects. The difference between Bednarek (2009a) and the current study lies mainly in the type of grammar patterns that is being examined. That is, Bednarek (2009a) did not pay much attention to adjective complementation patterns, whereas this particular type of linguistic pattern is taken as the very focus in the current study. I hope my discussion, starting with the under-explored adjective complementation patterns, could make some contributions to addressing the general question of the extent to which grammar patterns can be used as a diagnostic to distinguish types of Attitude.

6.2.1.1 Patterns and attitudinal lexis

Based on the corpus analysis in Chapter 5, I produced Table 6.1 (see below) which shows whether one particular type of attitudinal lexis can co-occur with particular adjective complementation patterns (also see Section 5.4).

It appears that almost all types of attitudinal lexis (i.e. affective, judgement and appreciating) can occur in each adjective complementation pattern. However, there are a few exceptions. To be specific, it is shown that there is no Judgement lexis occurring in the pattern **ADJ by**, and no Appreciation lexis in patterns **ADJ at**, **ADJ about**, **ADJ towards** and **ADJ that** (also see Section 5.3). This suggests that, even though specific types of lexis do not seem to occur in distinct patterns, there are some distinct patterns wherein one particular type of attitudinal lexis does not occur (also see Appendix 1). Accordingly, the issue concerning patterns as a diagnostic can be addressed in an alternative way, as noted in Section 5.3.2. That is, instead of attempting to explore the diagnostic value of grammar patterns by asking whether specific types of lexis (e.g. affective, judgement and appreciating) can only occur in certain distinct patterns (as

Bednarek (2009a) does), we can address the question by asking whether there are some patterns in which specific types of lexis do not occur.

Table 6.1: Adjective complementation patterns and attitudinal lexis

Attitude Pattern	AFFECT		JUDGEMENT		APPRECIATION	
ADJ at	√	<i>amazed at surprised at</i>	√	<i>good at adept at</i>	×	
ADJ about	√	<i>angry about excited about</i>	√	<i>brave about modest about</i>	×	
ADJ by	√	<i>impressed by surprised by</i>	×		√	<i>complicated by unacceptable by</i>
ADJ for	√	<i>happy for anxious for</i>	√	<i>famous for fit for</i>	√	<i>essential for important for</i>
ADJ in	√	<i>interested in delighted in</i>	√	<i>active in successful in</i>	√	<i>important in effective in</i>
ADJ of	√	<i>proud of scared of</i>	√	<i>capable of guilty of</i>	√	<i>typical of symbolic of</i>
ADJ to n	√	<i>grateful to averse to</i>	√	<i>loyal to new to</i>	√	<i>central to crucial to</i>
ADJ towards	√	<i>affectionate towards</i>	√	<i>kind towards hostile towards</i>	×	
ADJ with	√	<i>pleased with satisfied with</i>	√	<i>good with generous with</i>	√	<i>consistent with compatible with</i>
ADJ to-inf	√	<i>willing to happy to</i>	√	<i>able to lucky to</i>	√	<i>sufficient to enjoyable to</i>
ADJ that	√	<i>glad that worried that</i>	√	<i>confident that optimistic that</i>	×	

As can be seen from Table 6.1 above, the analysis shows that no appreciating lexis is found occurring in patterns **ADJ at**, **ADJ about**, **ADJ towards** and **ADJ that**, which indicates that these patterns might be of some use in differentiating Appreciation lexis from Judgement ones. That is to say, lexis which can occur in those patterns would probably not be associated with Appreciation. Similarly, it is also observed that the pattern **ADJ by** is not used to express judgement meanings, which might imply that **ADJ by** can be used to differentiate Judgement lexis from Affect and Appreciation ones, i.e. items occurring in this pattern can only be either affective or appreciating lexis. Based on the analysis in this study, there appears to be no adjective complementation patterns that can be used to distinguish Affect lexis from Judgement and Appreciation ones. However, Hunston (2011: 137) has observed that there are some patterns (e.g. **ADJ against**, **ADJ as**) which normally are not used to construe emotions, which suggests that there are also patterns which might be used as tests to decide whether an item can be justifiably considered as affective lexis.

In contrast to Bednarek (2009a), the current investigation suggests that adjective complementation patterns could be of some use for distinguishing Judgement from Appreciation. This is because there are (at least) five language patternings (e.g. **ADJ at**, **ADJ about**) which can only co-occur with one type of opinion lexis, i.e. either Judgement or Appreciation lexis. Nevertheless, it has to be noted that it would not be possible to use this particular type of grammar patterns to **distinguish automatically** all types of attitudinal lexis, due to the fact that affective lexis can almost occur in every adjective complementation pattern, as shown in Table 6.1.

6.2.1.2 Patterns and attitudinal target

The second question Bednarek (2009a) addresses is concerned with the types of attitudinal assessment, i.e. whether there are specific patterns that can only be used to 1) evaluate things, or 2) human behaviour, or 3) to construe emotions. She discusses this question briefly and speculates that there seems to be “no one-to-one correspondence between pattern and attitudinal target” (Bednarek 2009a: 183). The current study confirms that, as far as adjective complementation patterns are concerned, there is no complementation pattern that can only be used to evaluate things or behaviour or to construe emotions, as shown in Table 6.1 above (cf. Hunston’s (2011: 133-134) analysis which shows that the pattern *it v-link ADJ of n to-inf.* can only be used to express ethical or moral evaluation of human beings, i.e. Judgement in terms of appraisal).

However, what is worth mentioning is that the analysis shows that there are some patterns which only co-occur with one type of opinion lexis, i.e. either Judgement or Appreciation lexis (see Table 6.1 above). This, on the one hand, suggests that these patterns might be of some use in distinguishing opinion lexis, i.e. Judgement and Appreciation (cf. Bednarek 2009a), as noted above. On the other hand, this suggests that attitudinal target (i.e. the type of entity that is being appraised) is also an important criterion for characterising evaluative resources, because the distinction between a *human target* (Judgement) and a *thing target* (Appreciation) is encoded in linguistic forms (see Section 6.3.1.1 below for more discussion).

Summing up, it can be concluded that adjective complementation patterns could be of some use in distinguishing types of attitudinal meanings (cf. Bednarek 2009a; Hunston 2011: 119-150). The analysis above shows that patterns like **ADJ at**, **ADJ about**, **ADJ towards** and **ADJ that** were not used to express Appreciation in the CoB

(see Table 6.1), which implies that these patterns may be used as tests to decide whether or not a lexical item can be justifiably considered as appreciating lexis. To put it another way, if an item can occur in these patterns, the item probably would not be an appreciating lexis. Similarly, the analysis shows that the pattern **ADJ by** was not used to express Judgement, which indicates that items occurring in this pattern would probably not be judgement lexis. At the same time, it has to be stressed again that this does not mean that it would be easily possible to use pattern differentials to distinguish automatically types of attitudinal meanings.

The discussion so far mainly focuses on the question as to whether adjective complementation patterns can be used as a diagnostic to distinguish types of Attitude, which shows that this particular type of grammar pattern could be of some use in this task, even in differentiating Judgement from Appreciation. The following section addresses a related question, i.e. to what extent can adjective complementation patterns be used to assess the validity of the distinctions drawn between the meaning categories identified in an ATTITUDE subsystem, that is, to make finer distinctions between the meaning categories identified in the refined JUDGEMENT system.

6.2.2 Patterns and the refined JUDGEMENT system

As mentioned earlier, Martin and White suggest that “a more delicate exploration of frames will help interrogate the subcategorisation of **affect, judgement and appreciation**” (Martin & White 2005: 59, emphasis original), which has to some extent been explored in Hunston (2011: 137-138). Based on her examination of adjectives complemented by a *that*-clause, Hunston observes that Affect directed towards a proposition can be realised by the pattern **ADJ that**, whereas Affect directed at a person or thing cannot be realised by this pattern. She further points out that the realisations for a particular type of Affect might be limited but not restricted to any particular linguistic forms (e.g. Affection can be realised by *be passionate about, be fond of, be keen on, be enthusiastic over, be partial to*, etc.) (Hunston 2011: 138). She concludes that it would not be practically possible to make finer distinctions between the sub-types of Affect by using pattern differentiation (see Section 3.2.2.2 for more discussion).

Hunston (2011) is probably right that pattern differentiations might not be useful for making finer distinctions between the subcategories of Attitude and that one particular sub-type of Affect can be expressed by a range of linguistic expressions, which might also be true for the sub-types of Judgement and Appreciation. However,

due to the limitation of her discussion to one specific pattern (i.e. **ADJ that**), Hunston (2011: 137-138) has not addressed the question as to whether there are specific patterns that can only be used to express one particular sub-type of Affect (or Judgement or Appreciation) when the patterns are associated with Affect (or Judgement or Appreciation). Therefore, starting with Judgement, my discussion will primarily focus on this unaddressed question, i.e. are there any (adjective complementation) patterns that are only associated with one subcategory of Judgement when the patterns are used to express judgement meanings.

It may be said that we can be certain about the actual ‘existence’ and about the distinctiveness of any Judgement (or attitude) subcategories if any specific language form can be found to be dedicated to expressing those meaning categories. This could provide some insights into the assessment of the validity of the distinctions made between the subcategories of Judgement. That is to say, if any pattern/s is/are found to be associated only with one particular sub-type of Judgement, then we can say that this sub-type of Judgement must ‘exist’ and that the pattern/s can be used to differentiate this sub-type of Judgement from the other ones. At the same time, it must be pointed out at the outset that even if no adjective complementation pattern is found to be used in this way, it is by no means tenable and plausible to conclude that the distinctions made between Judgement categories are invalid. This is because there are many other linguistic resources which can be used to express judgement meanings, whereas the interrogation of all these resources is far beyond the scope of the current study.

Based on the corpus analysis (see Chapter 5), I extracted all the lexical items, i.e. the co-occurrence of lexis and pattern (e.g. *brave about, capable of, shrewd in*) that are associated with Judgement and classified them into the JUDGEMENT system (see Appendix 2 for the classification). A summary of the classification is presented in Table 6.2 below.

As can be seen from Table 6.2, though the majority of adjective complementation patterns are shared by different sub-types of Judgement, there is one exception. That is, the pattern **ADJ at** is only used to make a judgement about a person’s ability (i.e. Capacity) when this pattern is associated with Judgement, as shown in Table 6.2. This indicates that Capacity can be reasonably considered as one of the central factors based on which a person can be judged, because the evaluation of a person’s ability is encoded in linguistic representations.

Table 6.2: Adjective complementation patterns and JUDGEMENT

Category Pattern	Normality	Capacity	Tenacity	Veracity	Propriety	Emotivity
ADJ at	×	√	×	×	×	×
ADJ about	×	√	√	√	√	√
ADJ for	√	√	×	×	√	√
ADJ in	√	√	√	√	√	√
ADJ of	×	√	√	×	√	√
ADJ to n	√	√	√	√	√	√
ADJ towards	×	×	×	×	√	√
ADJ with	√	√	√	√	√	√
ADJ to-inf.	√	√	√	×	√	√
ADJ that	×	×	√	×	×	√

In fact, this observation is not only supported with corpus linguistic evidence, but also with other studies. For example, Painter (2003), from an ontogenetic perspective, shows that the evaluation of one's ability arises early in child language development; and more recently, Millar and Hunston (in press) also suggest that (intellectual and interpersonal) ability is a central factor based on which university instructors are evaluated (cf. Ngo and Unsworth's (2015) discussion of material, mental and social capacity).

The analysis so far shows that patterns are of very limited use in making finer distinctions between the subdivisions of Judgement. Nevertheless, I am neither surprised nor disappointed that adjective complementation patterns are only of limited use in distinguishing different types of evaluative meanings, due to the fact that almost all kinds of evaluation can be expressed by adjective patterns (see also Martin & White 2005: 58; Hunston 2011: 129). However, it is well worth trying to explore the diagnostic value of adjective complementation patterns, because these patterns are particularly frequently used to express evaluation and because there is to date no study which has yet explored systematically the association between this particular type of grammar patterns and attitudinal meanings.

To recapitulate, the analysis above shows that adjective complementation patterns are of some (but limited) use in distinguishing types of attitudinal meanings and to diagnose the validity of the distinctions made between the subtypes of Judgement. In the following section, I will address the second question raised at the beginning of this chapter, i.e. what can be revealed about appraisal if grammar patterns are used as a heuristic to investigate evaluative language.

6.3 Patterns as a Heuristic

It has been noted that, though patterns are only of some use in distinguishing types of attitudinal meanings, “patterns are a very useful heuristic, identifying distinctions in evaluative meaning that the Appraisal system may overlook” (Hunston 2011: 150). However, except Hunston (2011), the issue concerning patterns as a heuristic has barely been discussed (see Section 3.3.3.4). Therefore, I will address further the question as to what grammar patterns can tell us about appraisal if the patterns are taken as a heuristic to investigate attitudinal resources (Section 6.3.1). In addition, I will also explore the correlation between adjective complementation patterns and judgement meanings and discuss what insights can be offered into the general issue concerning the association between patterns and meanings (Section 6.3.2).

6.3.1 Patterns and Attitude

In this section, my aim is to explore what patterns as a heuristic can tell us about appraisal. It will be argued that the two criteria – attitudinal lexis and attitudinal target, are equally important for the description and characterisation of appraisal resources, which further suggests that appraisal would better be interpreted as simultaneous choice made in terms of attitudinal target (human beings or things) and attitudinal lexis (quality or emotion). Lastly, the issue of invoked evaluation will also be addressed with respect to attitudinal target.

6.3.1.1 Attitudinal target

In the APPRAISAL model, it is noticed that the classification of attitudinal resources is primarily based on attitudinal lexis. This is explicitly reflected by the distinction made between emotion and opinion. For example, White states:

The distinction is between what, for the sake of brevity and clarity, I will term ‘emotion’ and ‘opinion’. I will use the term ‘emotion’ in essentially its everyday sense to label attitudinal assessments which are indicated through descriptions of the emotional reactions or states of human subjects. I will use the term ‘opinion’ in a rather narrower sense than is customary in everyday usage to label positive or negative assessments of the type just discussed....

(White 2004: 232)

The distinction between emotion and opinion is considered as the typological criterion based on which the attitudinal resources are classified. In Appraisal (Martin 2000; Martin & White 2005), emotion is equivalent to Affect, and opinion is further divided into opinions about human subjects (i.e. Judgement) and opinions about entities under evaluation (i.e. Appreciation). Accordingly, the ATTITUDE system is typologically represented as a system network comprising three types of attitudinal meanings (see Section 2.3.2 for more detail).

As noted above, this classification is primarily based on attitudinal lexis. However, one potential problem is that the classification of attitudinal resources based on attitudinal lexis only cannot cope with phenomena of “‘judging’ lexis used to appreciate things, [...], ‘appreciating’ lexis used to judge behaviour” (Bednarek 2009a: 180). This further results in ‘Target-Value mismatch’ (Thompson 2014a: 56-59) and makes the practice of appraisal analysis a difficult task.

As for the solution, Bednarek’s (2009a) suggestion that attitudinal resources should be classified according to both attitudinal lexis and attitudinal target (i.e. to whom or which the evaluation is attributed) appears to be a useful one. While the criterion of attitudinal lexis has already been well-established as the distinction between emotion and opinion in Appraisal Theory (White 2002, 2004; Martin & White 2005), the issue of how attitudinal target can contribute to the classificatory work of appraisal resources has to date not been fully explored, as discussed in Section 3.2.2.1. I will thus focus on addressing this issue.

Simply put, my argument is that the criterion of attitudinal target is of equal significance as attitudinal lexis in the description and characterisation of appraisal resources (cf. Thompson 2010: 402). This argument is made on the basis of the corpus observation that there are some language patternings which can be used as tests to distinguish Judgement lexis from Appreciation ones (see Section 6.2.1 above) and that there are some items (e.g. *remarkable for*, *influential in*) which, depending on the type of entity that is being evaluated, can realise both Judgement and Appreciation. These two observations will be discussed in turn.

To start with, the corpus analysis shows that there are some language patternings which can only co-occur with one particular type of opinion lexis. For a summary of these cases, see Table 6.3 below.

Table 6.3: Adjective complementation patterns co-occurring with only one type of opinion lexis

Attitude Pattern	JUDGEMENT		APPRECIATION	
ADJ at	√	<i>good at</i> <i>adept at</i>	×	
ADJ about	√	<i>brave about</i> <i>modest about</i>	×	
ADJ by	×		√	<i>complicated by</i> <i>unacceptable by</i>
ADJ towards	√	<i>kind towards</i> <i>hostile towards</i>	×	
ADJ that	√	<i>confident that</i> <i>optimistic that</i>	×	

As shown in Table 6.3, patterns **ADJ at**, **ADJ about**, **ADJ by**, **ADJ towards** and **ADJ that** can only co-occur with one type of opinion lexis, which suggests that these patterns might be of some use in differentiating Judgement from Appreciation. In fact, apart from the five complementation patterns presented here, it is observed that there are a number of other adjective patterns which only co-occur with either Judgement or Appreciation lexis (see Appendix 1). This has (at least) one important implication. As noted in Section 2.3.2, Judgement is concerned with the ethical evaluation of human character and/or behaviour and Appreciation with the aesthetic evaluation of products and processes. That is to say, the distinction between Judgement and Appreciation is made in terms of attitudinal target, i.e. Judgement requires a *human target* whereas Appreciation requires a *thing target*. The analysis above shows that there are some language patternings which can be used to make distinctions between the evaluation of human beings (Judgement) and the evaluation of things (Appreciation), which indicates that this distinction is encoded in linguistic representations. In terms of Appraisal, this means that the distinction between types of attitudinal target is worth drawing, and more importantly, that attitudinal target should be taken into account in the characterisation and classification of appraisal resources.

In addition to the observation that the distinction between types of attitudinal target is encoded in language patternings, it is also observed that there are cases where one lexical item can realise either Judgement or Appreciation, depending on the type of the entity that is being appraised. This observation further suggests that attitudinal target should be considered when describing and characterising attitudinal resources. For the

purpose of illustration, examples given in Section 5.3.4 are used again.

1	GT1 370		She was	<i>famous for</i>	her witty, outrageous remarks
2	F9U 736	The expensive fish restaurant,		<i>famous for</i>	its oysters and its excellent ...
3	J56 284		he was	<i>remarkable for</i>	his quiet voice and stable temper
4	GT0 485		But his drawings were	<i>remarkable for</i>	their acuteness of observation ...
5	GT4 126		Here he quickly became	<i>notorious for</i>	his stern management
6	AE8 526	twentieth century has become		<i>notorious for</i>	its rejections of rationality

As discussed in Section 5.3.4, lines 1, 3 and 5 are associated with Judgement because the appraised entity is a person, and lines 2, 4 and 6 with Appreciation because the appraised entity is a thing. But how can items like *famous for*, *remarkable for* and *notorious for* be classified? Clearly, such items need to be classified with respect to attitudinal target, i.e. the type of the entity that is being appraised, other than in terms of attitudinal lexis. The point is becoming clear now that attitudinal target should be considered when describing and characterising attitudinal resources.

Given that both attitudinal lexis and attitudinal target should be taken into consideration for classifying attitudinal resources, another issue raised consequently is to which criterion, i.e. attitudinal lexis or attitudinal target, the priority should be given. According to Bednarek,

... what we need for APPRAISAL analysis is a classification of **attitudinal lexis** in terms of evaluative standards which are inscribed in this lexis, which constitutes our first starting point for the analysis of ATTITUDE. But we also need a classification of **attitudinal targets** or **types of attitudinal assessment** as the second starting point for the analysis of ATTITUDE.

(Bednarek 2009a: 180, emphasis original)

In other words, Bednarek (2009a: 180) suggests that attitudinal lexis should be the primary starting point for analysing ATTITUDE and attitudinal target be the secondary criterion. I agree that attitudinal lexis is an important criterion for classifying appraisal. However, based on the above discussion, I would argue that attitudinal target is of equal importance as a criterion as attitudinal lexis for the description and characterisation of appraisal resources.

The argument that the criteria of attitudinal lexis and attitudinal target are equally significant for accounting for appraisal resources directly takes the discussion on to another related issue: what is appraisal?

6.3.1.2 Appraisal as simultaneous choice

The discussion here still focuses on the ATTITUDE system. As introduced in Section 2.3.2, ATTITUDE is subdivided into AFFECT (the construal of emotion), JUDGEMENT (ethical evaluation) and APPRECIATION (aesthetic evaluation). They are considered as parallel systems, each of which deals with one particular meaning area. In this sense, appraisal can be interpreted as a system of attitudinal meanings which is composed of three parallel subsystems (see Figure 6.1 below).

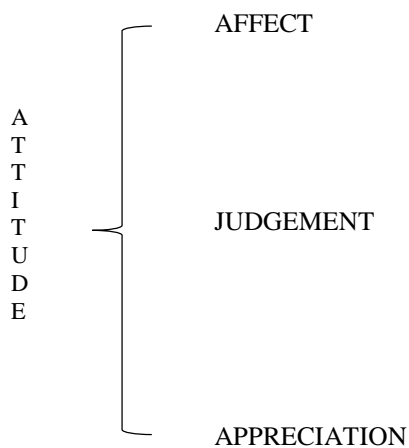


Figure 6.1: ATTITUDE as a parallel system

An alternative interpretation of Attitude is suggested in, for example, White (2004) and Bednarek (2009a). As mentioned above, White (2004) primarily makes a distinction between emotion and opinion and further points out that opinion includes evaluation of human beings (Judgement) and evaluation of things (Appreciation). Similarly, Bednarek (2009a) proposes that there are two ways of classifying linguistic resources used to construe attitude: 1) based on the attitudinal lexis used, and 2) based on the target to whom/which the value is ascribed. She further suggests that attitudinal lexis should be considered as the primary principle and attitudinal target as the secondary for the classification of attitudinal resources (Bednarek 2009a: 180).

It can then be said that White (2004) and Bednarek (2009a) give priority to the criterion of attitudinal lexis, i.e. they prioritise Affect and then make a secondary distinction according to the entity that is being evaluated (i.e. Judgement and Appreciation in terms of appraisal). This alternative interpretation can be shown in Figure 6.2 below.

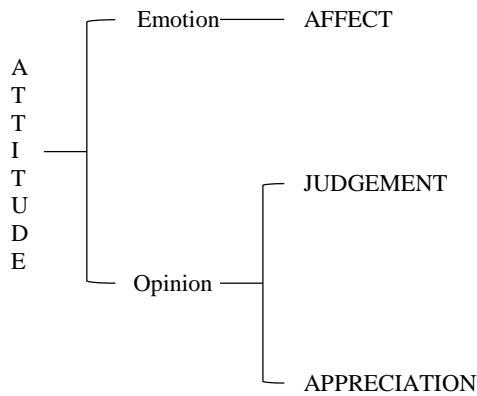


Figure 6.2: An alternative interpretation of Attitude

However, one problem is that the criteria used to classify attitudinal resources are somewhat inconsistent: Affect differs from Judgement and Appreciation in terms of attitudinal lexis, i.e. the distinction between emotion and opinion, whereas Appreciation differs from Affect and Judgement in terms of attitudinal target, i.e. whether the emotion or evaluation is attributed to a *human target* or a *thing target*. As a consequence, this makes APPRAISAL somewhat inherently inconsistent, which further results in the difficulty and complexity of appraisal analysis.

I have argued that attitudinal lexis and attitudinal target are equally important criteria for the description and characterisation of evaluative resources. That is to say, both the distinctions between emotion and opinion and between the evaluation of human beings (i.e. Judgement) and the evaluation of things (i.e. Appreciation) should be taken into consideration when characterising appraisal resources. The reason is simple: partly because it is easy to recognise whether an attitudinal lexis is directed at a person or a thing by examining the subject of the evaluative clause, and more importantly, this is because the corpus analysis shows that the distinction between the evaluation of human beings and the evaluation of things is represented in language patternings (see Table 6.3 above), which indicates that this distinction is worth drawing.

Based on these observations, I argue that it is more rational and plausible to interpret appraisal expressions as being instantiated by simultaneous choices made in terms of ‘what’ – attitudinal target: human beings or things, and ‘how’ – attitudinal lexis: emotion or quality. In fact, a similar argument has already been made in Hunston (2013b). Through exploring how the lexically-based concept – grammar pattern, supports or challenges the categories of Appraisal, Hunston also proposes that it would be better to interpret appraisal as simultaneous choice (see Figure 6.3 below).

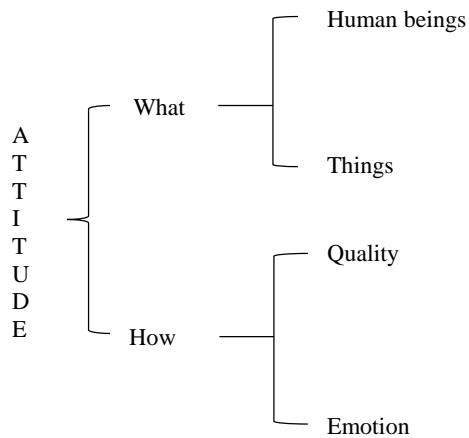


Figure 6.3: Appraisal as simultaneous choice (adapted from Hunston 2013b)

Arguably, interpreting appraisal as simultaneous choice may help appraisal analysts to deal with the border issues Appraisal faces; for example, judging lexis can be used to appreciate and appreciating lexis can be used to judge, the overlapping between Affect and the Appreciation variable Reaction, and the overlapping between affective and judging resources. That is, a combination of *human beings* and *quality* realises Judgement, and a combination of *human beings* and *emotion* realises Affect. A little different from Affect and Judgement, Appreciation can be instantiated by the combination of *attitudinal target: thing* with *attitudinal lexis: emotion* and/or *quality*; this is because emotion can be indicated either “as a quality of the responder, as in *Everyone in the school is distressed to hear this tragedy* or as a quality of the thing evaluated, as in *... after the distressing events of 1887*” (Hunston 2003a: 353). In short, this means that when an entity, be it human beings or things, is being evaluated, we can evaluate it either by talking about our emotional response towards it or by talking about the quality of it. In this sense, it is plausible to interpret appraisal as simultaneous choice.

6.3.1.3 Attitudinal target and invoked evaluation

It has long been recognised that attitudinal meanings can be expressed in a range of ways (Ochs & Schiefflen 1989; Martin & White 2005: 45; Alba-Juez & Thompson 2014: 10-11; Taboada & Trnavac 2014), which in general can be categorised as verbal (e.g. lexis, syntax and grammar) and non-verbal means (e.g. facial expression, gesture, signs, emoticons). The focus of the discussion here is on the verbal means (but see, for example, Joseph (2004), Feng & O’Halloran (2012) and Unsworth (2015) for the discussion of non-verbal means of evaluation).

It is very common to find both cases where the evaluation is explicitly encoded in the linguistic expressions and those where the evaluation is implicitly expressed. Correspondingly, a distinction made in appraisal is between ‘inscribed’ evaluation, i.e. “where the positive/negative assessment is directly inscribed in the discourse through the use of attitudinal lexis”, and ‘invoked’ evaluation, i.e. “where it is not possible to isolate such explicitly attitudinal vocabulary” (White 2011: 18). Accordingly, it can be inferred that inscribed evaluation is more likely to be realised by lexical resources (e.g. adjectives) and invoked evaluation by contextual or cultural effects (cf. Thompson’s (2014a: 51) discussion of the instance *that child throws stones at cats in the garden*).

Although most appraisal research focuses on inscribed evaluation, there have been some studies on invoked evaluation (e.g. Adendorff & de Klerk 2005; Coffin & O’Halloran 2006; Bednarek 2009a, c; Thompson 2014a). These studies suggest that invoked evaluation might be related to lexical items that are themselves evaluative. For example, Bednarek describes invoked evaluation as “a lexical item can ‘inscribe’ meaning from one Appraisal system (e.g. Judgement) and ‘invoke’ meaning from **another** Appraisal system (e.g. Appreciation)” (Bednarek 2007b: 111, emphasis original); or in Thompson’s (2014a: 47) words: “[a]n expression of one category of attitude may function as a token (an indirect expression) of a different category”. Clearly, the discussion of invoked evaluation in these studies is primarily concerned with lexical resources which inscribe one type of evaluation but invoke another. However, I noticed that sometimes invoked evaluation might as well be dependent on attitudinal target.

I came across some cases where an evaluative lexis instantiating a given pattern does not evaluate the grammatical subject of the utterance but invokes an evaluation of the other participant involved in the utterance. That is to say, the reader has to trace the target to whom or which the evaluation is attributed. For example,

- 6.1 Even her guru, Peter Waterman, was not *privy to* the secret preparations for the opening concerts in Japan and Britain. (ADR 1565)
- 6.2 For the Trinity chapel beyond the presbytery, William was *unhampered by* an existing structure. (GT1 796)
- 6.3 ... ‘your secret is *safe with me*’. (JOW 332)
- 6.4 Everyone over retirement age is *exempt from* paying prescription charges (ABU 1014)

As shown above, the evaluative meaning is conveyed by the evaluative lexis (i.e. *privy*, *unhampered*, *safe*, *exempt*). However, this does not mean that they can be uncontroversially characterised as inscribed evaluation; on the contrary, I would argue

that they are more like invoked evaluation, because these expressions require the reader/listener to infer who or what the appraised target is.

That is, the target being evaluated in the above instances is not realised by the grammatical subject (i.e. *Pete Waterman*, *William*, *your secret* or *everyone*), but by the other participant involved (i.e. *her*, *an existing structure*, *me* and (probably) *social welfare* respectively). More specifically, in the first instance, it is what she did that makes *Pete Waterman* not privy to the preparations, which means that it is her behaviour that is evaluated; the second instance invokes an appreciating meaning of the existing structure, because it can be paraphrased as *the existing structure does not cause any trouble for him*; and in example 6.3, it is not *your secret* that is being evaluated, but it invokes an evaluation of ‘my reliability’, i.e. Tenacity in terms of Judgement; and in example 6.4, presumably, it invokes an appreciation of the social welfare system.

It is evident that this type of invoked evaluation goes beyond the concept of invoked evaluation discussed in previous studies (e.g. Martin & White 2005: 61-68; Bednarek 2007b; White 2011). Appraisal suggests that in an ‘invoked’ evaluation, “it is not possible to isolate such explicitly attitudinal vocabulary” (White 2011: 18). However, as discussed above, cases of invoked evaluation can also be found where lexis explicitly expresses evaluative meaning; they are characterised as ‘invoked’ evaluation because the exact nature of the evaluation and the target of the assessment have to be inferred. In other words, we cannot take for granted that the target (i.e. the entity being evaluated) always corresponds to the grammatical subject of an evaluative clause; on the contrary, we have to be aware that there are some cases where we have to infer who/what the real target of an evaluation is. It is in this respect that I argue that both attitudinal lexis and attitudinal target should be taken into account in the description of invoked evaluation, which further requires the notion of invoked evaluation to be extended.

6.3.2 Patterns and Judgement

It has been argued that studies “confirm and exemplify the hypothesis that patterns and meanings are associated, but the exact nature of the connection is not explored” (Hunston 2003b: 33). This section thus explores in depth the association between patterns and meanings, focusing specifically on adjective complementation patterns and judgement meanings. The intention is to provide some insights into the connections between patterns and meanings.

6.3.2.1 Data analysis

Based on the corpus analysis in Chapter 5, I retrieved those lexical items which are associated with judgement meanings and classified them into the JUDGEMENT system, i.e. Normality, Capacity, Tenacity, Veracity, Propriety and Emotivity (see Appendix 2). The number of lexical items realising each meaning category, and the proportion each category occupies, is counted. The result is presented in Table 6.4 and Figure 6.4 below.

Table 6.4: Adjective complementation patterns and Judgement

Category Pattern	Types	Normality		Capacity		Tenacity		Veracity		Propriety		Emotivity	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
ADJ at	11	0	/	11	100	0	/	0	/	0	/	0	/
ADJ about	32	0	/	6	18.75	5	15.63	4	12.50	9	28.12	8	25.00
ADJ for	21	8	38.10	10	47.62	0	/	0	/	2	9.52	1	4.76
ADJ in	64	8	12.50	22	34.38	18	28.12	3	4.69	9	14.06	4	6.25
ADJ of	28	0	/	5	17.86	5	17.86	0	/	11	39.28	7	25.00
ADJ to n	43	1	2.33	4	9.30	7	16.28	1	2.33	24	55.81	6	13.95
ADJ towards	14	0	/	0	/	0	/	0	/	10	71.43	4	28.57
ADJ with	24	2	8.33	8	33.33	1	4.17	1	4.17	9	37.50	3	12.50
ADJ to-inf	23	2	8.69	13	56.52	1	4.35	0	/	6	26.09	1	4.35
ADJ that	3	0	/	0	/	1	33.33	0	/	0	/	2	66.67

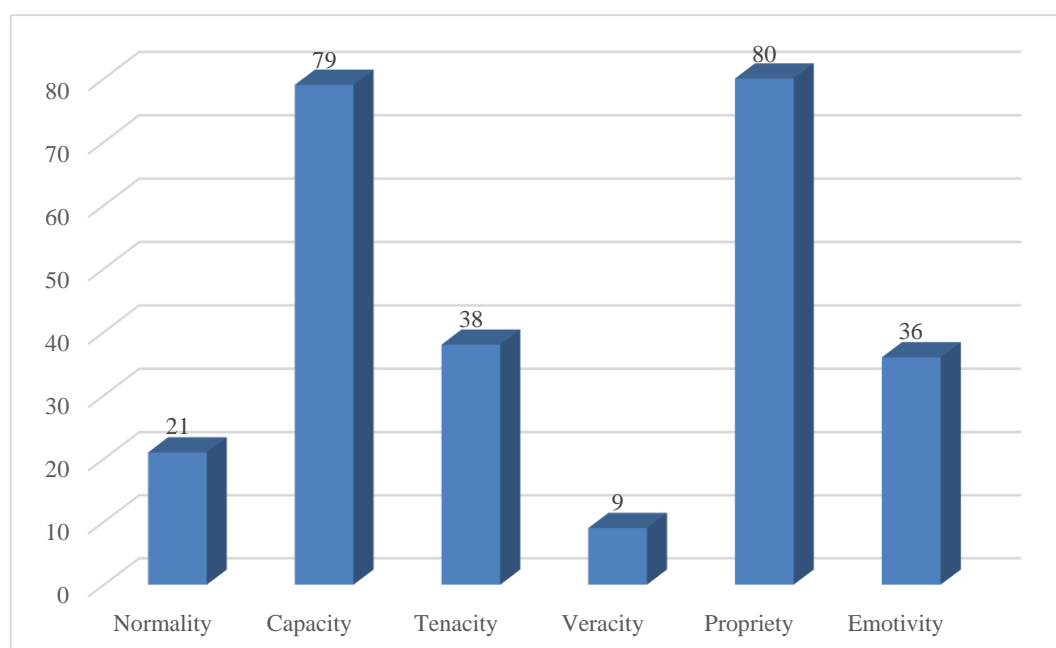


Figure 6.4: The distribution of lexical items into the refined JUDGEMENT system

6.3.2.2 Interpretation and discussion

This subsection presents a qualitative interpretation of the data analysis. It is observed that the analysis above does not only shed light on the association between patterns and meanings, but also on some other general issues, e.g. corpus data and linguistic theory, linguistic representation and reality. These observations are discussed in turn.

(I) *Patterns and meanings*

Based on the analysis above, it is possible to draw some conclusions about the association between patterns and meanings. Clearly, the analysis has further exemplified that patterns and meanings are closely connected. Firstly, it is shown that adjective complementation patterns might be used as a diagnostic to make distinctions between sub-types of Judgement. As noted above, when the pattern **ADJ at** is involved with Judgement, it can only be used to express Judgement: Capacity, which indicates that this pattern might be useful for distinguishing Capacity from other sub-types of Judgement. Secondly, it is noteworthy that some patterns seem to be more frequently associated with one particular type of Judgement than another (e.g. **ADJ at** with Capacity; **ADJ in**, **ADJ to n** and **ADJ with** with Propriety), which suggests that patterns might have a preference to express particular types of meanings. Lastly, it is observed that there are more lexical items realising Propriety and Capacity but there are only very few lexical items realising Veracity. This further shows that some attitudinal meanings (e.g. Propriety and Capacity) are more likely to be expressed by adjective complementation patterns whereas some are less so (e.g. Veracity in particular), as discussed in Section 5.4 (but see the subsection *Linguistic Representation and Reality* below for an alternative explanation).

In addition to the above findings, it is also observed that patterns can function as the ‘limiter’ or ‘specifier’ of evaluative meanings and sometimes may even affect the nature of the evaluative meaning (i.e. the type of Attitude) an item can express (cf. ‘semantic reversal’ in Sinclair 2004: 134-136). This observation is to a great extent consistent with Hanks’s (2013: 65-83) argument that words in isolation only have meaning potential, but do not have specific meaning; the meaning of a word is closely connected with its prototypical or normal patterns (see also Hanks & Pustejovsky 2005). A good example to illustrate the first case is the adjective *good*. The meaning of *good* is very broad. It can be used to evaluate various things (see also O’Donnell 2014: 361).

However, the meaning of *good* becomes specific when it occurs in specific patterns. For example,

7	ECM 358	She was	<i>good at</i>	art as well
8	BN6 1342	I'm not very	<i>good with</i>	things like that
9	CDM 1993	She was	<i>good to</i>	my sister
10	ADP 2034	He is very	<i>good with</i>	the crew
11	BMM 1800	I naturally felt very	<i>good about</i>	it and proud of
12	CHE 1134	Even Dawn must have felt	<i>good about</i>	it

As has been discussed in Section 4.4.2, *good* is used to express Judgement in concordance lines 7 – 10 and is used to express Affect in concordance lines 11 and 12. It is clear that the meaning of *good* becomes specific or limited when *good* occurs in a given pattern. For example, the pattern **ADJ at** limits the evaluative meaning of *good* within Capacity, and the pattern **ADJ to n** limits the meaning within the evaluation of behaviour. The pattern **ADJ with** is a little bit complicated. It limits the meaning within Capacity when the noun phrase following the preposition *with* indicates a thing, whereas it limits the meaning within Propriety when the noun phrase following the preposition *with* indicates a person (also see Section 5.3.7 and Section 8.2.3).

What is more, it is worth noting that the exact type of Attitude an item expresses may also be dependent on grammar patterns, as discussed in Section 5.3.6. For example, *good* is mostly associated with Judgement when it occurs in **ADJ at** and **ADJ with**, as shown in concordance lines 7 and 8; however, *good* can be associated with Affect when it occurs in the pattern **ADJ about**, which can be explicitly reflected with its co-occurrence with *FEEL* (see Martin & White 2005: 58), as shown in concordance lines 11 and 12 above.

Another good example in case found in the CoB is *guilty*. The meaning of *guilty* is dependent on the pattern in which it occurs. For example, *guilty* can occur in **ADJ of**, **ADJ about** and **ADJ for**,

13	A7C 1005	she has been	<i>guilty of</i>	intellectual sin in failing to
14	G SX 1627	They were both	<i>guilty of</i>	a criminal offence ...
15	AE8 951	I feel mildly	<i>guilty about</i>	accepting such hospitality
16	AT1 1992	I feel tremendously	<i>guilty about</i>	what we did to Shaun.
17	CA9 2230	I skulled ... feeling	<i>guilty for</i>	fingering fabric and ...

The meaning of *guilty* in **ADJ of** is different from its meaning when it is used in patterns **ADJ about** and **ADJ for** (also see Section 5.3.6). The meaning of *guilty of* is associated with legality: someone is legally responsible for a crime or offence, as shown in concordance lines 13 and 14; whereas the meaning of *guilty about* and *guilty for* is

associated with emotional response: someone is un/happy about something, as shown in concordance lines 15 – 17 (though it is arguable that *guilty* in these instances simultaneously implies disapproval, as suggested in Martin and White (2005: 60)). In terms of appraisal, *guilty* in **ADJ about** and **ADJ for** realises Affect whereas *guilty* in **ADJ of** realises Judgement, which shows that patterns can even affect the nature of the evaluative meaning (i.e. the type of Attitude) that a lexical item can express. This further shows that patterns and meanings are associated. Additionally, this also supports the argument that illustrative examples for appraisal (sub)categories should be given in the form of *word + pattern* combination (e.g. *guilty of*, *guilty about*), other than word in isolation (see Section 4.4.2).

In short, the corpus analysis not only supports the observation that patterns (or form) and meanings are associated, but also offers some new insights into the pattern-meaning association.

(II) *Corpus data and linguistic theories*

It has been argued that corpus linguistics and theoretical linguistics (e.g. SFL, cognitive linguistics) are complementary and compatible (e.g. Butler 2004; Halliday 2003, 2005; Thompson & Hunston 2006; Gries 2010; Barlow 2011; Hunston 2013c). Indeed, corpus data and corpus evidence can be conducive to linguistic theories. For example, the analysis in Section 6.3.2.1 confirms the theoretical hypothesis made in SFL that linguistic choice is in essence probabilistic (see also, for example, Halliday & James 1993; Halliday 2003, 2005; Matthiessen 2006, 2014b).

The important role played by corpus investigation into the frequency and probability of linguistic choices in language description has been made particularly explicit by Halliday who argues that

... these quantitative features are not empty curiosities. They are an inherent part of the meaning potential of a language. An important aspect of the meaning of negative is that it is significantly less likely than positive; it takes up considerably more grammatical energy, so to speak. **The frequencies that we observe in a large corpus represent the systemic probabilities of the language; and the full representation of a system network ought to include the probability attached to each option in each of the principal systems.**

(Halliday 2003: 23, emphasis mine)

Halliday further suggests that corpus linguistics can provide methods to gather “evidence of relative frequencies in the grammar, from which can be established the probability profiles of grammatical systems” (Halliday 2005: 73). In other words, the Hallidayan approach hypothesises that probability is an inherent property of language use, but it is corpus analysis that confirms the hypothesis and facilitates the investigation of the probability of one particular linguistic choice. In terms of the present study, the analysis above, on the one hand, confirms that the use of adjective patterns is probabilistic; and on the other hand, it also reveals the approximate probability of one particular adjective complementation pattern to be chosen as a means to express one particular type of judgement meaning (see Table 6.4 above).

In fact, the important role corpus data plays in theory construction has also been exemplified in the present study. The corpus analysis largely supports the argument made in Chapter 4 that the emotional types of personality traits is one of the factors based on which a person can be judged and that JUDGEMENT should be extended to cover such resources. As shown in Figure 6.4 above, there are 37 lexical items which can be used to construe attitudes towards emotional types of personality, i.e. Emotivity in terms of Judgement. The number of lexical items realising Emotivity ranks the fourth, higher than Normality and Veracity, which suggests that it is (at least) proportionally significant enough to establish Emotivity as a subcategory of Judgement. In addition, it is noteworthy that Emotivity can be realised by most of the adjective complementation patterns (9 out of 10) examined in this study (see Table 6.4 above). According to Saucier and Goldberg, “[t]he degree of representation of an attribute in language has some correspondence with the general importance of the attribute” (Saucier & Goldberg 2001: 849, italics original). In other words, the importance of an attribute is to a great extent reflected by the number of the terms (and their frequency) and linguistic forms that are used to represent this attribute. In this sense, based on the corpus data, it can be safely asserted that Emotivity is an important factor for making judgement, and further, that Emotivity should be characterised as a sub-type of Judgement.

Apart from offering insights into grammar modelling, this quantitative information could also be of practical significance. For example, the probability distribution can be used to develop parsers in computational linguistics for natural language processing (see Manning & Schutze 1999: 407-456); the quantitative information about the probability can also be presented as a reference to inform non-native speakers in which

situation to choose which form (e.g. adjective complementation pattern) to express unmarkedly a given type of meaning (e.g. Judgement).

At this point, it is worth recapitulating the relationship between corpus linguistics and theoretical linguistics (e.g. SFL, cognitive linguistics). Simply put, they are complementary, as has been pointed out in many studies (e.g. Barlow 2011; Hunston 2013c). What theoretical linguistics is good at is to propose abstract theories based on possible linguistic examples, and what corpus linguistics is good at is to figure out how language is typically used based on the analysis of a large amount of authentic data¹⁰. Both of the two aspects, i.e. possibility and typicality, need to be accounted for in linguistic description and explanation. This would require that more collaborative work be conducted between theoretical and empirical linguistics so as to provide a better understanding of language and language use in real contexts (cf. Gries 2011: 90-92; Laviosa 2011: 142-143).

(III) *Linguistic representation and reality*

The exploration of patterns and meanings also reflects a connection between linguistic representation and reality. According to our intuition, it might be speculated that we tend to judge a person by talking about whether s/he is capable of, or competent in, doing something and whether his/her behaviour is appropriate and acceptable. This intuitive speculation has been proved to be true by Painter (2003) which shows that children develop judgement of ability and appropriateness earlier than other categories. This is further evidenced by the corpus analysis above. The aspect concerning a person's competence corresponds to the Judgement category Capacity and the other factor concerning with whether his/her behaviour is appropriate or acceptable corresponds to the Judgement category Propriety (also see Section 4.5.1). The analysis above shows that most of the adjective complementation patterns can be used to express Capacity and Propriety (see Tables 6.2 and 6.4 above) and that there are more lexical items expressing Capacity and Propriety (see Figure 6.4 above), which I believe is neither accidental nor coincidental but is consistent with reality (cf. 'language mirrors reality' in Wittgenstein 1921, cited in Alba-Juez & Thompson 2014: 3; Austin 1956; Saucier & Goldberg 1996a, b, 2001).

¹⁰ Or in Owen's words: "even if corpora are never comprehensive, they are certainly very good at showing us what is typical" (Owen 2007: 209).

This indicates that patterns are a good heuristic. Similarly, Hunston has argued that, What a ‘pattern grammar’ is useful for, however, is providing evidence for the wide range of adjective-in-pattern exemplars that are available for consideration. Lists of such patterns and adjectives based on corpus investigation are, arguably, a useful supplement to and confirmation of intuition.

(Hunston 2011: 138)

Grammar patterns, as a heuristic, are indeed very helpful in providing exemplars to supplement and confirm the intuition. As discussed above, a relatively large number of exemplars of Capacity and Propriety has been provided by the examination of adjective complementation patterns, which confirms our intuitive speculation. This further indicates that there is a close connection between linguistic representation and reality (cf. Halliday & Matthiessen 1999).

6.3.3 A brief summary of patterns as a heuristic

To sum up, taking patterns as a heuristic reveals some aspects which were neglected or overlooked in the current APPRAISAL model. For example, it has been illustrated that attitudinal target and attitudinal lexis are equally important criteria for classifying appraisal resources, which further suggests that appraisal is instantiated by choices made simultaneously in terms of attitudinal target and attitudinal lexis.

The analysis of the correlation between adjective complementation patterns and judgement meanings further exemplifies the association between patterns and meanings. It has been shown that one particular pattern might be more frequently associated with one particular (sub)type of Attitude (e.g. **ADJ at** with Capacity; **ADJ with** with Propriety), and some meanings might be more likely to be expressed by particular language patterns (e.g. Propriety and Capacity are frequently expressed by adjective complementation patterns). Additionally, it has been demonstrated that the meaning potential of a given item becomes specific when it occurs in a particular grammar pattern, which is largely consistent with the argument that “different senses of words will tend to be distinguished by different patterns” (Hunston & Francis 2000: 83).

Furthermore, the analysis offers some insights into some other general issues. For example, it has been argued that the revelation of probability of language choice is helpful for modelling linguistic theories and for language education. And also, it has been suggested that there is a connection between linguistic representation and reality,

that is, the more frequent an attribute is represented in language, the more important the attribute is in real life.

6.4 Summary

This chapter has extensively explored the diagnostic and heuristic value of adjective complementation patterns in appraisal research. Using grammar patterns as a diagnostic to distinguish types of Attitude, it has been observed that adjective complementation patterns might be of some use in differentiating Judgement from Appreciation. At the same time, it has been noted that it would not be possible to use this particular type of grammar patterns to distinguish automatically all types of attitudinal meanings, because affective meanings can almost be realised by all adjective complementation patterns. Using grammar patterns as a diagnostic to distinguish the sub-types of Judgement, the analysis shows that the employment of this particular type of linguistic pattern to assess the validity of the subcategorisation of the JUDGEMENT system is to some extent helpful. In particular, the investigation of adjective complementation patterns reveals that Capacity is certainly a factor based on which a judgement can be made.

The analysis suggests that grammar patterns are more of heuristic than of diagnostic value. Taking patterns as a heuristic, it has been argued that attitudinal target should be considered as of equal importance a criterion as attitudinal lexis for the description and characterisation of attitudinal resources, which further contributes to a better understanding of appraisal. That is, it has been suggested that appraisal is instantiated by choices made simultaneously in terms of attitudinal target (i.e. human beings or things) and attitudinal lexis (i.e. emotion items or opinion items). Furthermore, the phenomenon of invoked evaluation has also been discussed with respect to attitudinal target, which suggests that cases where the attitudinal target has to be inferred should be characterised as invoked evaluation.

What is more, I have further explored the correlation between adjective complementation patterns and Judgement, which offers some new insights into the association between patterns and meanings. For example, it has been shown that there is a mutual dependency between patterns and meanings in the sense that patterns may have a tendency or preference to express one particular type of meanings (e.g. **ADJ at** for Capacity) and some meanings (e.g. Propriety and Capacity) are more frequently expressed by adjective complementation patterns than others (e.g. Veracity). In addition, it has been illustrated that patterns can function as the ‘limiter’ or ‘specifier’ of the

meaning potential an item has and sometimes may even affect the type of attitudinal meanings an item can express.

As noted at the beginning of this chapter, the usefulness of grammar patterns in the study of evaluative language is related to two aspects. The first aspect is concerned with using patterns as a diagnostic and/or heuristic to investigate evaluative meanings, and the second one is concerned with taking grammar patterns as a starting point to develop local grammars of evaluation. Having explored the diagnostic and heuristic value of grammar patterns, the focus of the remainder of the thesis will be put on the construction of local grammars of evaluation (see Chapters 7 and 8).

CHAPTER 7 PATTERN AND APPRAISAL: TOWARDS A LOCAL GRAMMAR OF JUDGEMENT

7.1 Introduction

Closely related to pattern grammar is the concept of local grammar; this close connection has been made particularly explicit in Hunston (2002a: 181) where she argues that grammar patterns “are an essential component of Local Grammars”. Recently, the concept of local grammar has been increasingly applied to the study of evaluative language (e.g. Hunston & Sinclair 2000; Hunston 2003a, 2011; Bednarek 2007a, 2008a; Bloom 2011). In terms of the development of local grammars of evaluation, it has been argued that grammar patterns would be a good starting point for this task (Hunston & Sinclair 2000; Hunston 2003a, 2011).

Previous studies have suggested that local grammars may be able to provide a more systematic and coherent description of evaluative language than general grammars can; this further helps to develop the associated parser which in turn might have the potential to enable the automatic identification and analysis of evaluative clauses. This indicates that the construction of local grammars of evaluation is a worthwhile and useful enterprise. However, while local grammars have been increasingly applied to the study of evaluative language, the value of local grammars of evaluation has yet not been fully explored (Bednarek 2007a) and local grammars are still “under-theorised” (Hunston unpublished manuscript). This chapter thus sets as its objective to further explore issues concerning local grammars of evaluation, focusing specifically on the construction of a local grammar of Judgement.

This chapter starts with revisiting the concepts of local grammar and local grammars of evaluation (Section 7.2), and then compares local grammar analysis with other related approaches, i.e. frame semantics, corpus pattern analysis, and transitivity analysis (Section 7.3). The focus will then be put on the construction of a local grammar of Judgement (Section 7.4). Overall, it will be demonstrated that the appraisal taxonomy of attitudinal meanings and grammar patterns are useful for the development of local grammars of evaluation.

7.2 Local Grammar and Evaluative Language

In Section 3.3.1, I have introduced the concept of local grammar and the concept of

local grammars of evaluation. To recapitulate, each local grammar deals with one meaning only and involves mapping meaning elements on to form or pattern elements. Apart from what has been discussed in previous sections, it needs to be pointed out that the concept of local grammar in the current study is more in line with Barnbrook and Sinclair (1995) and Hunston and Sinclair (2000) than with Gross (1993) where it originates: local grammar in Gross (1993) is concerned with accounting for linguistic areas (e.g. numbers, names) that regular grammatical analysis cannot cope with, whereas local grammar in Barnbrook and Sinclair (1995) and Hunston and Sinclair (2000) is considered as necessary to account for all areas of language, including areas that regular grammars could quite easily cope with.

Moreover, local grammar in a Sinclairian tradition typically uses functional elements that are characteristic of one particular area to describe and analyse instances associated with that particular area (e.g. definition, evaluation). This means that local grammars analyse each element in terms that are directly related to its discourse function (Hunston 2011: 142). In this sense, it can be said that local grammars may contribute to a functional grammar which is in a way different from traditional functional grammars (cf. Hunston & Sinclair 2000: 79).

I have argued that the taxonomic representation of attitudinal meanings in the APPRAISAL model makes the Appraisal framework suitable for being the theoretical framework for the establishment of local grammars of evaluation (see Section 3.3.2.1). This is because a taxonomic representation of structure and/or semantics is desirable for the development of local grammars (cf. Barnbrook 2002: 97-104). In a similar vein, Hunston also notes that the successful construction of local grammars of evaluation would need to “differentiate [...] between evaluation-as-emotive reaction (Affect) and evaluation-as-social judgement (Judgement or Appreciation)” (Hunston 2011: 143). Clearly, this indicates that a taxonomic classification of attitudinal meanings is desirable, if not a prerequisite, for the development of local grammars of evaluation. Since the APPRAISAL model is considered the most fine-grained framework currently available for evaluation, it can be reasonably argued that the appraisal taxonomy of attitudinal meanings facilitates the establishment of local grammars of evaluation (see Section 3.3.2.1 for more discussion).

In addition, it has been suggested that grammar patterns could be a good starting point for the construction of local grammars of evaluation (e.g. Hunston & Sinclair 2000; Hunston 2003a, 2011). This is because grammar patterns are useful in identifying

meaning units, and because grammar patterns and attitudinal meanings are closely connected, as shown in Section 5.3. Moreover, the relatively complete list of grammar patterns provided in the *Grammar Pattern* series (Francis *et al* 1996, 1998) helps to identify as many evaluative clauses as possible, which makes a relatively exhaustive examination of such clauses possible. This further helps to capture the regularities of evaluative clauses and to provide a systematic and coherent description of evaluation. This could at least be feasible for “evaluations which are explicit and which use typical evaluative words” (Hunston & Sinclair 2000: 84). It is in these respects that it can be argued that grammar patterns are helpful for the construction of local grammars of evaluation.

The upshot of the above discussion is that the appraisal taxonomy of attitudinal meanings and grammar patterns are useful for building local grammars of evaluation, which has to some extent been exemplified in some studies (e.g. Hunston 2003a, 2011; Bednarek 2008a) and will be further exemplified in the current study.

7.3 Local Grammars, FrameNet, Corpus Pattern Analysis and Transitivity

As noted in Section 3.3.1, local grammars typically work with functional categories that are characteristic of one particular meaning area and involve mapping these functional elements on to pattern elements. This functional analysis has similarities with many other approaches, in particular with Fillmore’s frame semantics (e.g. Fillmore & Atkins 1992; the special issue in *International Journal of Lexicography* 16(3); Baker 2012), Hanks’ Corpus Pattern Analysis (e.g. Hanks 2008a, 2013), and the Transitivity analysis in SFL (e.g. Halliday & Matthiessen 2004). In the following subsections, I will briefly discuss these approaches; special attention will be paid to the functional terms they use¹¹, because those functional terms used in the aforementioned approaches may shed light on the identification of functional elements that are suitable for the local grammar of Judgement.

7.3.1 FrameNet and local grammar

The fundamental idea of frame semantics is that the meaning of a word can only be

¹¹ Comprehensive comparisons between these approaches can be found in, for example, Hunston (2003a), Hanks & Pustejovsky (2005), Bednarek (2008a: 66-69), Hanks (2013: 383-388).

understood with some background frames or conceptual structures that activate the meaning (see, for example, Fillmore & Atkins 1992; Baker 2012; Hanks 2013: 386). Researchers working on FrameNet thus attempt to explain language use by identifying those frames associated with a given lexical item, which has been shown to be useful and valuable.

Among these currently identified frames, I found that frames like *Judgement*, *Morality Evaluation*, *People_by_morality*, *Social_behavior_evaluation* and *Social_interaction_evaluation* are more or less related to the evaluation of human character and/or behaviour (see also Hunston 2003a). However, such frames, on the one hand, have not been exhaustively identified; and, on the other hand, these frames are to some extent similar to each other, which might be the result of the collaborative nature of FrameNet, i.e. there are a large number of scholars in different institutions working on this project (Baker 2012). As a consequence, these frames might not be a good starting point for developing the local grammar of Judgement.

Nevertheless, since these frames identified in frame semantics are highly reminiscent of Judgement in terms of Appraisal, it may be speculated that the frame elements (e.g. *Cognizer*, *Evaluee*, *Expressor*) identified in these corresponding frames might be compatible for a local grammar analysis of Judgement, or more safely to say, these elements can at least offer some insights into the identification of local grammar terms involved with Judgement. This is true; these frame elements do inspire the identification of functional elements associated with the local grammar of Judgement. For example, the local grammar element *Target* (see Section 7.4.1) is quite similar to *Evaluee* (i.e. the person whose behaviour towards other human beings is being evaluated) identified in FrameNet, e.g. *Mrs Robinson* in *Mrs Robinson was always considerate of her students* (example taken from the frame *Social_interaction_evaluation* in FrameNet).

At this point, it needs to be pointed out that the major difference between these frames and appraisal categories is not one of terminology, but one of systematicity. That is, similar frames (e.g. *Morality Evaluation*, *People_by_morality*) do not systematically fall into a broad category, whereas appraisal (sub)categories do so (e.g. Affect, Judgement, Appreciation).

7.3.2 Corpus pattern analysis and local grammar

Corpus Pattern Analysis (CPA, see Hanks 2004, 2008, 2013) has something in common

with local grammars as well. For example, methodologically, both CPA and local grammars (and FrameNet too) adopt a corpus-based approach to describe language in use. CPA also takes almost the same procedures to align form with meaning as local grammars do. For instance, both CPA and local grammars need to identify the patterns and specify the structures of these patterned expressions, so that the functional elements (or ‘semantic types’ in terms of CPA) can be mapped on to the corresponding formal elements.

However, the focus of CPA and local grammar analysis is different. For example, the word *witness* in CPA is presented as “[[Human]] witness [[Event]]”, and the word *execute* as “[[Human 1]] execute [[Human 2]]” (Hanks 2008). This suggests that CPA is primarily concerned with mapping meaning elements on to structural elements associated with a specific item. In contrast, local grammar analysis is primarily concerned with mapping functional elements on to pattern elements associated with one particular meaning (Hunston & Sinclair 2000; Bednarek 2008a; Hunston 2011; also see Section 7.4 below). What is more, functional elements (or ‘semantic types’ in terms of CPA) used in CPA and those used in local grammars also differ from each other in terms of the degree of ‘specificity’. That is, CPA uses more general terms (e.g. *Human*, *Event*), whereas local grammar uses more specific terms (e.g. *Emoter*, *Emotion* and *Trigger* in Bednarek’s (2008a: 72-94) local grammar of Affect) which are characteristic of, and unique to, one particular meaning area.

Nevertheless, this does not mean that local grammar is superior to CPA, or the other way around. The difference has to do with their respective aims. That is, CPA aims to assist dictionary compilation and automatic information extraction, and thus the use of more general terms is necessary; local grammars, on the other hand, aim to provide a systematic and coherent description of each particular meaning area, and thus the use of more specific terms is more appropriate.

7.3.3 Transitivity analysis and local grammar

It is noteworthy that local grammar analysis also shares similarities with Transitivity analysis in SFL, in particular the functional terms used in local grammars and the participant roles in Transitivity processes. In fact, this has already been discussed in Hunston and Francis (2000: 123-142) where they point out that semantic roles are associated with notional groups in local grammar analysis whereas participant roles are associated with process types in transitivity analysis (Hunston & Francis 2000: 129-

130). For example, Transitivity analysis may analyse *The fifth day* in *The fifth day saw them at the summit* either as *Senser* or as temporal circumstance, depending on whether this instance is interpreted as *Mental process* or *Material process*; however, *The fifth day* can be consistently analysed as ‘*Point of Time*’ in local grammar analysis because this function is directly associated with this notional group (see Hunston & Francis 2000: 123-142 for more discussion).

I will further discuss the two approaches to lexicogrammatical analysis. More precisely, my discussion here will focus specifically on how the Participant Roles identified in the Relational Process might inspire the identification of functional categories associated with the local grammar of Judgement. This is because the patterns in the present study are restricted to adjective complementation patterns and instances which contain adjective complementation patterns typically correspond to clauses of (intensive) relational process. In addition, special attention will also be paid to the circumstantial elements identified in the TRANSITIVITY system, since both circumstantial elements and local grammar analysis have to explain the semantic roles realised by prepositional phrases.

In SFL, “[r]elational’ clauses serve to characterize and to identify” (Halliday & Matthiessen 2004: 210). According to Halliday and Matthiessen (2004), there are three principal types of relational clauses – intensive, possessive and circumstantial, and each of these comes in two distinct modes of being – ‘attributive’ and ‘identifying’” (Halliday & Matthiessen 2004: 215). The main types of relational process are exemplified in Table 7.1 below.

Table 7.1: The principal types of relational clauses (Halliday & Matthiessen 2004: 216)

	(i) attribute ‘a is an attribute of x’	(ii) identifying ‘a is identity of x’
(1) intensive ‘x is a’	Sarah is wise	Sarah is the leader; the leader is Sarah
(2) possessive ‘x has a’	Peter has a piano	The piano is Peter’s; Peter’s is the piano
(3) circumstantial ‘x is at a’	the fair is on a Tuesday	Tomorrow is the 10th; the 10th is tomorrow

Adjectives mostly occur in intensive: attributive clause. In an intensive: attributive clause, there are two main participants – Carrier and Attribute. Carrier is typically realised by noun phrases and Attribute by adjective phrases. The transitivity analysis of a typical intensive: attributive clause from a systemic functional perspective is shown below (see Table 7.2).

Table 7.2: Transitivity analysis of intensive: attributive clause

Sara	is	wise
Carrier	Process: relational	Attribute

It has to be pointed out that participant roles such as Carrier and Attribute may not be able to reflect directly the discourse function that ‘Sara’ and ‘wise’ fulfil respectively in terms of evaluation. This calls for alternative functional elements for a local grammar analysis. Target and Judgement are thus tentatively proposed for analysing these elements from a local grammar perspective (see Section 7.4.1 below). The analysis of this instance in terms of local grammars of evaluation is presented in Table 7.3 below.

Table 7.3: Local grammar analysis of intensive: attributive clause

Sara	is	wise
Target	Hinge	Judgement

In addition, adjectives of evaluation often have complementation patterns, as shown in Chapter 5. Nominal phrases complementing the patterns usually comprise prepositional phrases (e.g. *about some of the finer points* in *he was completely and utterly clueless about some of the finer points* (J56 570)). The function that the prepositional phrases fulfil is referred to as ‘circumstantial element’ in Transitivity analysis and as ‘complement’ in terms of pattern grammar respectively.

Halliday and Matthiessen (2004: 259-277) propose nine types of circumstantial elements, i.e. Extent, Location, Manner, Cause, Contingency, Accompaniment, Role, Matter, and Angle. Circumstantial elements, though conceived as peripheral in transitivity processes, offer in fact much more insights into the identification of functional terms associated with the local grammar of Judgement, because both transitivity analysis and local grammar analysis (in particular) have to explain the functions that prepositional phrases fulfil, as mentioned above. For example, elements involved in the local grammar of Judgement such as Scope and Reason are to a great extent similar to circumstantial elements like Cause, Manner, Role and Means identified in the TRANSITIVITY system (see Section 7.4.1 for more discussion).

7.4 A Local Grammar of Judgement

This section focuses on the construction of a local grammar of Judgement. Functional labels associated with the local grammar of Judgement will be proposed (Section 7.4.1);

a distinction will be made between *Self Judgement* and *Non-self Judgement* (Section 7.4.2); and the concept of local grammar pattern (or semantic configuration) will be introduced subsequently (Section 7.4.3). The focus will then be put on the demonstration of how to develop local grammars of evaluation; and examples will be given and parsed to show the local grammar of Judgement (Section 7.4.4). Finally, some observations drawn from the local grammar analysis will be briefly discussed (Section 7.4.5).

7.4.1 Functional elements for a local grammar of Judgement

I have explained above that local grammars typically work with functional categories that are characteristic of one particular meaning area. Drawing on insights from those relevant approaches discussed in Section 7.3, I tentatively propose the following local grammar elements for analysing those instances associated with Judgement (see Table 7.4 below).

Table 7.4: Functional elements for the local grammar of Judgement

Element	Explanation
Target	the one or one's behaviour is judged; to whom the judgement is assigned.
	e.g. <i>Macmillan</i> was very frank about his personal preference (A68 2518)
Judgement	the judgement meanings – Normality, Capacity, Tenacity, Veracity, Propriety and Emotivity, identified in the refined JUDGEMENT system.
	e.g. she herself is very knowledgeable about livestock and pedigrees (A7H 755)
Scope	the particular aspect on which the judgement is based, or to what extent the Judgement is valid.
	e.g. some of us were not adept at emptying our bowls neatly (EE5 1476)
Behaviour	the action on which the judgement is based (typically realised by <i>to-inf.</i> clause).
	e.g. he was lucky to escape with relatively minor punishment (B05 198)
Reason	the cause of the judgement, or why someone is judged in the way s/he is (typically realised by noun phrase following the preposition <i>for</i>).
	e.g. he quickly became notorious for his stern management (GT4 126)
Patient	the third party who is affected by the Target's behaviour.
	e.g. She became friendly with many of the young intellectuals (GT4 586)
Evaluator	the source of the evaluation, i.e. who makes the judgement (typically unexpressed or expressed implicitly in <i>Non-self Judgement</i> , whereas it is integrated with the Target in <i>Self Judgement</i> , see Section 7.4.2 below).
	e.g. I was capable of independent achievement (CEE 809)
Hinge	the connection between pattern elements (typically realised by link verbs, e.g. <i>be, become, grow</i>)
	e.g. He was very brave about the whole thing (ADR 613)

These meaning elements, except for 'Reason' and 'Scope', are self-explanatory and therefore can be easily distinguished. As for 'Reason' and 'Scope', my suggestion is to

use the ‘paraphrase test’ to distinguish them from each other: it is Reason if the nominal phrase complementing the pattern is more plausibly paraphrased as *because of X*, whereas it is Scope if the nominal phrase complementing the pattern is more plausibly paraphrased as *as far as X is concerned*. Furthermore, it also seems to be the case that the distinction between Scope and Reason only applies to the pattern **ADJ for** (or patterns which are complemented with nominal phrases following the preposition *for*). Concordance lines 1 and 2 are given to illustrate this point.

1	ADP 221	Karajan	has been	<i>famous for</i>	his willingness to breathe ...
2	AMC 285	he	had been pronounced	<i>unfit for</i>	military service

Instance 1 can be paraphrased as *Karajan is famous because of his willingness to ...* but is less acceptable if paraphrased as *he is famous as far as his willingness is concerned*; therefore, the noun phrase following the preposition *for* needs to be parsed as Reason. Instance 2 is the opposite. It is more plausible to paraphrase it as *as far as military service is concerned, he is considered as unhealthy enough*, but less so (and the meaning is entirely different) as *he is unfit because of military service*. Hence, it is more reasonable to parse the noun phrase complementing the pattern as Scope than as Reason.

It is worth noting that these functional elements are proposed on the basis of analysing Judgement instances where adjective complementation patterns occur; in consequence, it is still not clear whether these elements can also be used to parse Judgement instances in which, for example, noun patterns and/or verb patterns occur. My speculation is that we might need to identify a few more (but not so many) local grammar elements if noun patterns and verb patterns were taken into consideration. This is an area worthy of future exploration (see Section 9.4.1).

7.4.2 Self Judgement vs. Non-self Judgement

What is more, it appears important to make a distinction between *Self Judgement* and *Non-self Judgement*. The reason is that instances associated with *Self Judgement* and those with *Non-self Judgement* need to be analysed differently from a local grammar perspective. In addition, the distinction between *Self Judgement* and *Non-self Judgement* could be helpful for characterising text types. For example, it might be speculated that first person narratives can be characterised by the predominant use of *Self Judgement* whereas non-first person narratives by the predominant use of *Non-self Judgement*. This would in turn enlarge the applicability of appraisal analysis.

Simply put, *Self Judgement* refers to cases where the Target is the writer or speaker, as in *I'm good at singing and projecting my image* (ADR 2055); and *Non-self Judgement* refers to cases where the Target is a third party other than the writer or speaker, as in *she was good at remembering about them* (A68 1486). The distinction between *Self Judgement* and *Non-self Judgement* is a binary one, which can be easily recognised by examining the grammatical subject. That is, the grammatical subject in a *Self Judgement* instance is first personal pronouns *I* or *we*; and instances which do not have *I* or *we* as the grammatical subject fall into the category of *Non-self Judgement*.

In terms of local grammar analysis, the Target and Evaluator are realised by the same element in *Self Judgement*, whereas in *Non-self Judgement*, only the Target is expressed and the Evaluator is typically unexpressed (but can be inferred). Examples are given to show how instances associated with *Self Judgement* and *Non-self Judgement* have to be parsed respectively (see Table 7.5 below).

Table 7.5(1): Parsing *Self Judgement*

Target	Hinge	Judgement: Capacity	Scope
I	'm	good at	singing and projecting my image
I	'm	quite capable of	making up my own mind ...
Evaluator	Hinge	Judgement: Capacity	Scope

Table 7.5(2): Parsing *Non-self Judgement*

Target	Hinge	Judgement: Capacity	Scope
she	was	good at	remembering about them
Niki	was always	capable of	being the supreme turn-off.

Lastly, it is worth pointing out that this distinction applies to all sub-types of Judgement, though the examples given above are on Judgement: Capacity.

7.4.3 Local grammar pattern

I have explained that the patterns in this study are restricted to adjective complementation patterns. As noted earlier, an adjective complementation pattern is typically formed of an adjective with its complements, i.e. the adjective is complemented either by a prepositional phrase or a non/finite clause (Hunston & Sinclair 2000: 95; Section 2.2.2.3), e.g. **ADJ at**, **ADJ about**, **ADJ to-inf**, **ADJ that** (see Francis *et al* 1998: 400-480 for a detailed exemplification of these patterns).

Basically, a complementation pattern represents a semantic configuration¹² or local grammar pattern (the two terms are used interchangeably in the present study) which links different elements involved in a semantic category. The semantic configuration associated with one particular meaning area is typically represented by functional elements which are characteristic of that particular meaning area (cf. ‘semantic sequence’ in Groom 2005, 2007; Hunston 2008). For instance, one typical semantic configuration constructed by adjective complementation patterns associated with Judgement is *Target + Hinge + Judgement + Scope*, as shown in Table 7.5 above. More examples are given below (see Table 7.6).

Table 7.6: Semantic configuration *Target + Hinge + Judgement + Scope*

Target	Hinge	Judgement	Scope
NP	v-link	ADJ + Prep.	NP
he	was	brilliant at	his job
he	was	very brave about	the whole thing
Tony Benn	was	remarkable for	his sheer professionalism
he	was	shrewd in	personal assessments
Derek	was	always very supportive of	what I was trying to do
he	was	generous to	other poets and writers
she	was	generous with	her courtesy
he	is	correct to	highlight his flair ...

Apart from exemplifying the concept of local grammar pattern, the analysis also suggests that considerable consistency may be achieved of mapping functional elements on to pattern elements, which further confirms that grammar patterns and evaluative meanings are closely connected. Moreover, this connection indicates that it is possible to use the concepts of pattern grammar and local grammar to provide a systematic and coherent description of evaluative language, which, ultimately, may have the potential to assist the automatic identification and parsing of evaluative clauses.

As noted in Section 1.2, adjective complementation patterns may be the most promising starting point for building local grammars of evaluation, because evaluation is typically expressed by adjectives (Martin & White 2005: 58; Hunston 2011: 129) and evaluative adjectives are typically used in complementation patterns (Hunston & Sinclair 2000: 95). Surprisingly, however, there seems to be no study which has yet

¹² This term is similar to, but slightly different from, the one used in SFL; for example, a typical transitivity configuration in SFL is Participant₁ + Process + Participant₂ (+ Circumstance) (see Halliday & Matthiessen 2004: 168-305 for more discussion).

attempted to explore systematically how adjective complementation patterns can be used to develop local grammars of evaluation, though Hunston (2003a, 2011) and Bednarek (2008a) have briefly discussed these patterns (see Section 3.3.3). Attempting to bridge the gap, the following subsections thus focus on investigating how adjective complementation patterns can be employed to develop local grammars of evaluation, paying particular attention to the development of a local grammar of Judgement. Examples will be given of adjective complementation patterns and parsed using the functional labels proposed above to show the local grammar of Judgement.

What is more, since it has been suggested that local grammars may be used to quantify the ways in which a particular meaning can be expressed (Hunston 2002a: 178-181; Bednarek 2007a), I will also explore how local grammars can be used to do so. Accordingly, the subsequent local grammar analysis will be performed according to each meaning category (i.e. Normality, Capacity, Tenacity, Veracity, Propriety and Emotivity) identified in the modified JUDGEMENT system, other than simply using the concept of Judgement as an umbrella term; this in turn contributes to a more delicate local grammar analysis of Judgement.

7.4.4 Developing the local grammar of Judgement

7.4.4.1 Capacity

Although Martin and his colleagues start the discussion of Judgement with Normality, it has to be noted that Normality is somehow different from other Judgement categories. In consequence, it may be better to discuss Normality at the end, rather than at the beginning, of the analysis. The local grammar analysis thus starts with the more transparent Judgement categories, e.g. Capacity, Tenacity, Propriety; the intention is first to present a general idea of Judgement so that the analysis of Normality can be understood in relation to it.

Judgement: Capacity is concerned with how capable someone is. Adjective complementation patterns associated with this sub-type of Judgement are particularly rich and diverse (see Section 6.3.2.2 for the explanation); however, the parsing is largely consistent. The nominal phrases complementing the patterns typically indicate Scope, and correspondingly, most of these instances associated with Capacity can be parsed using the local grammar pattern *Target + Judgement: Capacity + Scope*; examples are given and parsed in Table 7.7(1) below.

Table 7.7(1): Parsing adjective complementation patterns associated with Capacity

Element Pattern	Target	Hinge	Judgement: Capacity	Scope
	NP ¹³	v-link	ADJ + Prep.	NP
ADJ about	he	was ...	clueless about	some of the finer points
ADJ at	he	was	inexperienced at	making deals...
ADJ for	he	... pronounced	unfit for	military service
ADJ of	Hoffman	was	...capable of	nastiness...
ADJ on	Mario	was always very	clear on	the subject
ADJ with	He	was particularly	skilled with	animals...
ADJ in	Kyle	is particularly	gifted in	the art of water colour
ADJ to n	she	was	new to	the job

Meanwhile, there are a few exceptions. The first exception is those instances in which the pattern **ADJ to-inf.** occurs. Since *to-inf.* clauses often indicate some kind of action (Hunston 2011: 131), it is more reasonable to parse the verbal phrase following the to-infinitive marker as Behaviour. Some examples are given and parsed in Table 7.7(2) below.

Table 7.7(2): Parsing adjective complementation patterns associated with Capacity

Element Pattern	Target	Hinge	Judgement: Capacity	Behaviour
	NP	v-link	ADJ + to-inf.	VP ¹⁴
ADJ to-inf.	he	was	powerless to	influence him
	Some children	are	slow to	express their ideas in writing

The second exception is a special case. It appears that only complements in instances which instantiate the pattern **ADJ for** and which are associated with Judgement: Normality should be parsed as Reason (see Section 7.4.4.6 below); however, a special case is found in the CoB: *stupid for*. It is observed that nominal phrase complementing *stupid for* is also more plausibly parsed as Reason; the analysis is presented in Table 7.7(3) below.

Table 7.7(3): Parsing adjective complementation patterns associated with Capacity

Element Pattern	Target	Hinge	Judgement: Capacity	Reason
	NP	v-link	ADJ + Prep.	NP
ADJ for	I	was	stupid for	losing them
	Evaluator	Hinge	Judgement: Capacity	Reason

¹³ NP is the abbreviation for nominal phrase.

¹⁴ VP is the abbreviation for verb phrase.

Lastly, while most of the instances associated with Capacity could be parsed successfully with little or no contextual information, the parsing of very few cases is highly context-dependent. Two examples found in the CoB are *ignorant about* and *cunning in*; *ignorant about* can be interpreted as realising either Capacity or Propriety, and *cunning in* as either Capacity or Veracity, depending on the context (cf. ‘appraisal blends’ in Bednarek 2007b). More specifically, *ignorant about* may mean *unknowledgeable*, which is related to Capacity in terms of Judgement (e.g. *we are still woefully ignorant about the operation in the landscape ...* (BMT 647)); however, it may also mean that the Target is not supposed to be *ignorant*, in which case it realises Propriety in terms of Judgement (e.g. *many heterosexual Christians had become less ignorant about the issues around sexuality* (C9S 1316)). Similarly, there also are two different readings residing in the item *cunning in*: it could be interpreted as either indicating that the Target is *skilful* (Capacity), as in *My pet mouse was becoming cleverer each day. He became particularly cunning in finding his way through a maze to find a piece of food*, or indicating that the Target is *deceitful* (Veracity), as in *The new teacher was not good at controlling his class of students. One young boy was particularly cunning in avoiding exams by faking illness*. These examples show that the wider context may push the interpretation of a given lexical item in one direction or another. The analyses of the two examples are respectively given in Table 7.7(5) below.

Table 7.7(4): Parsing *ignorant about*

Element	Target/Evaluator	Hinge	Judgement: Capacity	Scope
Pattern	NP	v-link	ADJ + Prep.	NP
ADJ about	I	was	ignorant about	its structure...
	Target/Evaluator	Hinge	Judgement: Propriety	Scope

Table 7.7(5): Parsing *cunning in*

Element	Target/Evaluator	Hinge	Judgement: Capacity	Scope
Pattern	NP	v-link	ADJ + Prep.	NP
ADJ in	I	became ...	more cunning in	finding ways ...
	Target/Evaluator	Hinge	Judgement: Veracity	Scope

7.4.4.2 Tenacity

Tenacity is related to resolution and reliability, or in Martin and White’s (2005: 52) words, how resolute someone is. As illustrated in Section 4.5.2.1, the distinction

between the evaluation of character and the evaluation of behaviour is not clear-cut; Tenacity can be considered as the typical category which blurs this distinction. For example, illustrative items that realise Tenacity include *brave*, *heroic*, *loyal*, and many others (see Martin & White 2005: 53); however, it is arguable that not only a person's personality traits but also his/her behaviour can be characterised as *brave*, *heroic* or *loyal*. It is in this respect that it can be argued that Tenacity often blurs the distinction between the evaluation of character and the evaluation of behaviour.

Nevertheless, unlike Capacity which is mainly based on one's behaviour, I would argue that Tenacity is primarily concerned with character traits, i.e. evaluation of character in terms of Judgement. This is based on the observation that these items can be used in the frame *someone is a ADJ person (by nature)*, as in *She was a very brave person* (B1Y 258) (see Section 4.5.2.1 for more discussion). Therefore, when someone is judged as *brave* or *heroic*, I consider it as instances that are related to the evaluation of character.

As for the parsing, though there are various patterns realising Judgement: Tenacity, instances associated with Tenacity can be parsed in a relatively simple and straightforward way. It is observed that the majority of those cases where adjective complementation patterns are used to express Tenacity can be parsed as *Target + Hinge + Judgement: Tenacity + Scope*. Some examples are given and parsed in Table 7.8(1) below.

Table 7.8(1): Parsing adjective complementation patterns associated with Tenacity

Element Pattern	Target	Hinge	Judgement: Tenacity	Scope
	NP	v-link	ADJ + Prep./that-clause	NP
ADJ about	he	was	very brave about	the whole thing
ADJ of	they	were	... supportive of	the company and the publicity...
ADJ with	he	was	careful with	money
ADJ in	The people	were	more independent in	their judgements
ADJ to n	he	was	open to	credit arrangements
ADJ that	Everybody	's	very careful that	your make-up looks right

Additionally, it is observed that not all the nominal phrases complementing the pattern **ADJ to n** indicate Scope; nominal phrases complementing the pattern **ADJ to n** may also indicate a third party who is affected by the person or the person's behaviour under evaluation. Since local grammars analyse pattern elements in terms that are directly related to their discourse function, it is plausible to propose the term Patient to parse

this affected third party (see Table 7.4 above; cf. ‘*Person affected*’ in Hunston & Sinclair (2000: 99)). Examples are given and parsed in Table 7.8(2) below.

Table 7.8(2): Parsing adjective complementation patterns associated with Tenacity

Element	Target	Hinge	Judgement: Tenacity	Patient
Pattern	NP	v-link	ADJ + Prep.	NP
ADJ to n	he	remained	loyal to	his friends
	he	was extra	attentive to	me

Apart from what has been discussed above, when the pattern **ADJ to-inf.** is associated with Tenacity, it constructs a different semantic configuration. As mentioned earlier, the *to-inf.* clause often indicates an action based on which the Judgement is made; therefore, those instances in which the pattern **ADJ to-inf.** occurs need to be parsed using the local grammar pattern *Target + Hinge + Judgement: Tenacity + Behaviour*, as shown in Table 7.8(3) below.

Table 7.8(3): Parsing adjective complementation patterns associated with Tenacity

Element	Target	Hinge	Judgement: Tenacity	Behaviour
Pattern	NP	v-link	ADJ + to-inf.	VP
ADJ to-inf.	we	were	careful to	refuse the presents ...
	They	were	careful to	keep the bull in the same field

7.4.4.3 Veracity

According to Martin and White (2005), Veracity and Propriety are considered as judgements of social sanction which have to do with morality and legality; this indicates that judgements of social sanction are particularly highly dependent on social cultural norms and ideological stance (cf. Coffin 2003: 226; Adendorff & de Klerk 2005). This suggests that it may be quite difficult to say whether an item realises positive or negative evaluation without extra social-cultural information, because a positive judgement of social sanction made in a specific cultural or ideological community might be a negative one in another community (also see Section 4.4.2.2). This is one reason for why I did not explicitly draw the distinction between positive and negative evaluation in the present study. In fact, this relates to a very complex issue concerning the association between evaluation and social community, which is far beyond the scope of the current study (cf. Millar & Hunston in press; Drasovean & Tagg forthcoming). The analysis in the present study is primarily based on the wording that the speaker/writer chooses.

Simply put, Veracity is concerned with how honest or truthful someone is, which neatly falls into the category of evaluation of character, as noted in Section 4.4.2.1. Illustrative examples include *honest, frank, blunt*, and many others (see Martin & White 2005: 53). However, it is surprising that adjective sequences associated with Veracity in the CoB are relatively rare. Only four adjective complementation patterns (i.e. **ADJ about, ADJ with, ADJ in, ADJ to n**) examined in the current study are found to be used to express Veracity (see Section 6.3.2). The reasons, I speculate, might be either the corpus used in the present study (e.g. biographical discourse does not talk much about Veracity), or the adjectives associated with Veracity do not occur frequently in adjective complementation patterns, or this meaning itself is not preferably expressed by adjective complementation patterns.

As for the parsing, like other Judgement categories, instances which instantiate adjective patterns and which are associated with Veracity typically construct the semantic configuration *Target + Hinge + Judgement: Veracity + Scope*. Some examples are given and parsed below (see Table 7.9).

Table 7.9: Parsing adjective complementation patterns associated with Veracity

Element Pattern	Target	Hinge	Judgement: Veracity	Scope
	NP	v-link	ADJ + Prep.	NP
ADJ about	Macmillan	was very	frank about	his personal preference
ADJ with	we	have to be	absolutely honest with	each other
ADJ in	I	became ...	cunning in	finding ways of being ...
ADJ to n	he	stayed	true to	his belief

7.4.4.4 Propriety

Propriety is concerned with whether someone behaves in the way s/he is supposed to. It might be true to say that, according to our common sense, evaluation of human beings is primarily concerned with whether a person is competent (Capacity in terms of Judgement) and whether his/her behaviour is appropriate and acceptable (Propriety in terms of Judgement). Correspondingly, it is reasonable to speculate that there will be more linguistic resources that are used to express these two types of judgement meanings, because the degree of the importance of an attribute corresponds to its linguistic representation, as noted in Saucier & Goldberg (2001: 849). This has been proven to be true in Section 6.3.2 where the analysis shows that there are relatively more lexical items and various linguistic patterns that are associated with these two sub-

types of Judgement than with other ones. In addition, this is also consistent with Hunston’s observation that grammar patterns can provide lists of word-in-pattern exemplars for consideration, which can be “a useful supplement to and confirmation of intuition” (Hunston 2011: 138).

While linguistic forms realising Propriety are diverse, the semantic parsing is considerably consistent. Most of these instances can be parsed using the local grammar pattern *Target + Hinge + Judgement: Propriety + Scope*, which is typical of Judgement. Some examples are given and parsed in Table 7.10(1) below.

Table 7.10(1): Parsing adjective complementation patterns associated with Propriety

Element Pattern	Target	Hinge	Judgement: Propriety	Scope
	NP	v-link	ADJ + Prep.	NP
ADJ about	The Prince	is genuinely	modest about	his artistic talent
ADJ for	he	had been	responsible for	poisoning Mozart
ADJ of	I	am	innocent of	this crime
ADJ with	she	was	generous with	her courtesy
ADJ on	he	was	... notably short on	humility
ADJ in	Gould	was	... ungenerous in	ensuring that...
ADJ towards	he	was	contemptuous towards	the United Nations ...
ADJ to n	he	seems totally	blind to	the fact that ...

Once again, when the pattern **ADJ to-inf.** is used to express Propriety, the verb phrase following the to-infinitive indicator should be parsed as Behaviour. That is to say, those instances which realise Propriety and which instantiate the pattern **ADJ to-inf.** should be parsed as *Target + Hinge + Judgement: Propriety + Behaviour* (see Table 7.10(2) below).

Table 7.10(2): Parsing adjective complementation patterns associated with Propriety

Element Pattern	Target	Hinge	Judgement: Propriety	Behaviour
	NP	v-link	ADJ + to-inf.	VP
ADJ to-inf.	he	was	right to	drive a hard bargain
	Gedge	is	wrong to	understate the importance of the Lost Pandas

As mentioned in Section 7.4.3.2, nominal phrases complementing the pattern **ADJ to n** might indicate an affected third party other than the Scope of or Reason for the evaluation. This is also the case for Propriety. To be specific, it is observed that when the patterns **ADJ with**, **ADJ to n** and **ADJ towards** are used to express Propriety, nominal phrases complementing these patterns may indicate a person, in which case the

complements should be parsed as Patient. Some examples are given and parsed in Table 7.10(3) below.

Table 7.10(3): Parsing adjective complementation patterns associated with Propriety

Element Pattern	Target	Hinge	Judgement: Propriety	Patient
	NP	v-link	ADJ + Prep.	NP
ADJ with	she	was so	good with	children
ADJ to n	he	was ...	generous to	the poor
ADJ towards	He and his family	are being	friendly towards	me

As shown in Table 7.10(1) and 7.10(3), noun phrases complementing **ADJ with**, **ADJ to n** and **ADJ towards** (probably there are more such patterns) can indicate either the semantic category “Scope” or “Patient”. In consequence, it is necessary to propose a guideline or rule for training the parser to recognise when to choose which local grammar pattern to parse these instances. A general observation from the local grammar analysis above is that the nominal phrase following the preposition in a given pattern should be parsed as Scope if it indicates a thing, and that the nominal phrase should be parsed as Patient if it indicates a person. This observation applies to all patterns involved with Judgement. Accordingly, the parser which is expected to perform the analytic task with little or no human intervention has to be trained to be able to make the distinction between nominal phrases indicating a thing and those indicating a person. This is a critical issue for the working of the associated parser, which will be further discussed in Section 8.3.2.

7.4.4.5 Emotivity

As noted in Chapter 4, the original JUDGEMENT system cannot account adequately for those items which express judgement about one’s emotional types of personality traits (e.g. *confident*, *arrogant*, *jealous*, *complacent*). In order to enable the system to deal more effectively with judgement resources, JUDGEMENT is extended to cover those resources which construe attitude towards emotion-related character traits, and Emotivity is tentatively proposed as a new sub-type of Judgement to deal specifically with these resources.

Although it is a newly established category, there are a considerable number of lexical items realising this meaning category, as discussed in Section 4.4.1.2. In addition, it has also been shown that the majority of adjective complementation patterns analysed

in the present study can be used to express this sub-type of Judgement (see Section 6.3.2 and Table 7.14). Since the significance of an attribute corresponds to its linguistic representation, this massive linguistic representation of Emotivity should be sufficient to support that Emotivity is an important attribute and therefore should be accounted for in the description and systematisation of judgement meanings (see Chapter 4 and Section 6.3.2 for more discussion).

In terms of local grammar analysis, instances associated with Emotivity also construct the semantic configuration *Target + Hinge + Judgement + Scope* which is typical of Judgement. Examples are given and parsed in Table 7.11(1) below.

Table 7.11(1): Parsing adjective complementation patterns associated with Emotivity

Element Pattern	Target	Hinge	Judgement: Emotivity	Scope
	NP	v-link	ADJ + Prep./that-clause	NP
ADJ about	he	was	obsessive about	his poetry ...
ADJ for	He	was often	thoughtful for	the traveller
ADJ of	Dyson	came to be	jealous of	their reputations ...
ADJ to n	Hardy	was always	sensitive to	the sound of voices
ADJ with	he	was growing	impatient with	his son's irresponsible ...
ADJ in	Rogers	was	... shy in	private life
ADJ towards	He ...	<i>being more</i>	sensitive towards	the feelings of others ...
ADJ that	Helen	was	confident that	her love would remove all doubts

Furthermore, like Tenacity and Propriety discussed above, it is observed that when patterns **ADJ with**, **ADJ to n** and **ADJ towards** are associated with Emotivity, nominal phrases complementing these patterns may also indicate a person. In such cases, the complements should be parsed as Patient. Some examples are given and parsed in Table 7.11(2) below.

Table 7.11(2): Parsing adjective complementation patterns associated with Emotivity

Element Pattern	Target	Hinge	Judgement: Emotivity	Patient
	NP	v-link	ADJ + Prep.	NP
ADJ to n	Thomas Cromwell	was	sympathetic to	the reformers
ADJ with	they	were	patient with	me
ADJ towards	Modigliani	was	... considerate towards	the older woman

As shown in the analysis above, there are quite a number of such cases where the nominal phrase complementing the patterns indicates a person, which further justifies the necessity of the term Patient.

Moreover, Emotivity can also be realised by the pattern **ADJ to-inf.**, in which case Emotivity is construed towards a future action or activity. Examples are given and parsed in Table 7.11(3) below.

Table 7.11(3): Parsing adjective complementation patterns associated with Emotivity

Element Pattern	Target	Hinge	Judgement: Emotivity	Behaviour
	NP	v-link	ADJ + to-inf.	VP
ADJ to-inf.	everyone	... was very	impatient to	see the prisoners
	he	was very	impatient to	see it work

7.4.4.6 Normality

Now we can come to the analysis of Normality. At its simplest, Normality is concerned with how special a person is or how un/usual or un/normal a person's behaviour is. As mentioned earlier, Normality seems to be different from the other Judgement categories. More specifically, Normality does not seem to be a feature which is inherent (as other sub-types of Judgement are) to the person under evaluation. A good example in case is *lucky* which is listed as an illustrative lexis for Normality (see Martin & White 2005: 53). Some concordance lines of *lucky* retrieved from the CoB are given below, which helps to characterise and understand Normality.

3	CHE 1812	they	were	<i>lucky to</i>	be alive
4	G3B 667	I	was	<i>very lucky to</i>	find this piece of land
5	A61 1647	We	were	<i>lucky in</i>	finding something to drink
6	ANF 817	he	was	<i>lucky in</i>	attracting funds

As shown in concordance lines 3 – 6, the Target (i.e. *they, I, We, he*) does not possess the 'luckiness'; instead, being lucky is attributed to the Target. This is not the same case as when someone is evaluated as capable or competent, because if someone is considered as being capable, s/he has that ability; or in other words, being capable could be considered as an inherent feature of her or him (see Section 7.4.4.1 above for more discussion about Capacity). Moreover, it is also difficult to say 'what' is being evaluated; for example, in *he was lucky in attracting funds*, whether it is the person *he* that is being evaluated or it is the action of *attracting funds* that is being evaluated?

Though it is a bit different, Normality can be considered as an aspect of Judgement in the sense that Target is evaluated as being special because what s/he did (i.e. evaluation of behaviour in terms of Judgement). Apart from that, a person can almost always be evaluated as being special if the evaluation is limited within an area or a

community, as discussed in Section 4.5.2. For example, *he was prominent in advocating toleration for Nonconformists* (GTO 1301), in which case the ‘specialness’ of *he* is limited within the action of *advocating toleration for Nonconformists*.

Having briefly discussed the characteristics of Normality, it is now time to show how instances associated with this sub-type of Judgement can be parsed from a local grammar perspective. It is observed that there are five adjective complementation patterns which are used to express Judgement: Normality in the CoB (see Section 6.2.2). The typical configuration to parse instances associated with Normality is *Target + Hinge + Judgement: Normality + Scope*, as shown in Table 7.12(1) below.

Table 7.12(1): Parsing adjective complementation patterns associated with Normality

Element Pattern	Target	Hinge	Judgement: Normality	Scope
	NP	v-link	ADJ + prep.	NP
ADJ with	he	was	popular with	his students
ADJ in	He	was	outstanding in	charity and compassion
ADJ to n	he	was very	similar to	my generation of politicians

Meanwhile, it is noticed that sometimes instances associated with Normality need to be parsed differently; for example, when Normality is realised by instances instantiating the pattern **ADJ for**, these instances would need to be parsed as *Target + Hinge + Judgement: Normality + Reason* (see Table 7.12(2) below). This could have to do with the semantic connotation of *for*, because *for* is often used to express reasons, as suggested by Leech (2014).

Table 7.12(2): Parsing adjective complementation patterns associated with Normality

Element Pattern	Target	Hinge	Judgement: Normality	Reason
	NP	v-link	ADJ + prep.	NP
ADJ for	They	were	notorious for	racing up and down the Strip...
	she	was	famous for	her witty outrageous remarks

In fact, it seems to be the case that, whenever the pattern **ADJ for** is associated with Judgement: Normality, nominal phrases following the preposition *for* indicate sort of reasons (though Reason is almost always associated with Normality, there is one exception, i.e. *stupid for*, which expresses Capacity, as discussed in Section 7.4.4.1). This observation needs to be taken into consideration because it is crucial for developing the associated parser and for training the parser to recognise how instances in which the pattern **ADJ for** occurs should be parsed. A simple way to solve the

problem would be to input a seed list of those adjectives realising Normality to the search programme and to command the programme to parse nominal phrases complementing these adjectives as Reason. This could be possible because there are only few such adjectives (see Appendix 2).

Apart from the patterns discussed above, there is one more pattern, i.e. **ADJ to-inf.** which can also be used to express Normality. As discussed above, instances which contain this pattern need to be parsed using the local grammar pattern *Target + Hinge + Judgement + Behaviour*. This is also the case for Normality; some examples are given and parsed in Table 7.12(3) below.

Table 7.12(3): Parsing adjective complementation patterns associated with Normality

Element	Target	Hinge	Judgement: Normality	Behaviour
Pattern	NP	v-link	ADJ + to-inf.	VP
ADJ to-inf.	Johnny	... was	fortunate to	survive the trough of ...
	he	was	lucky to	escape with relatively...

7.4.5 More on the local grammar analysis

Based on the analysis above, some observations can be drawn, which are discussed in some detail below.

7.4.5.1 Local grammar patterns of Judgement

The analysis, on the one hand, confirms Hunston's (2011: 140) observation that there is not a one-to-one correspondence between pattern elements and meaning elements. For example, it is shown that the elements complementing the pattern **ADJ for** can indicate either Scope or Reason, and that elements complementing the pattern **ADJ with** can indicate either Scope or Patient. This to some extent makes it quite challenging and complex a task to develop local grammars of evaluation. However, on the other hand, the analysis also shows that considerable consistency can be achieved of mapping functional elements on to pattern elements. As shown above, adjective complementation patterns associated with Judgement construct four general local grammar patterns or semantic configurations (i.e. *Target + Hinge + Judgement + Scope*, *Target + Hinge + Judgement + Reason*, *Target + Hinge + Judgement + Behaviour*, *Target + Hinge + Judgement + Patient*), which indicates that no matter how diverse the form is, the parsing could be considerably consistent. This observation further suggests that it might be possible to train the associated parser to capture all the

necessary information and to enable it to perform the analytic task with little or no human intervention.

In addition, it needs to be pointed out that there could be more local grammar patterns associated with Judgement. The limited variety of local grammar patterns identified may just be a result of the limited linguistic variation, that is, the analysis above have only considered patterns where adjectives are complemented by prepositions or non/finite clauses. It is highly possible that other semantic configuration can be identified if more linguistic resources were analysed. For example, previous studies (e.g. Martin & White 2005: 59; Hunston 2011: 133-134) have shown that the pattern *it v-link ADJ of n to-inf.* is of diagnostic value to distinguish Judgement from Affect and Appreciation. This pattern, in terms of local grammar analysis, constructs a semantic configuration which is different from those constructed by adjective complementation patterns. The semantic configuration constructed by *it v-link ADJ of n to-inf.* is *Hinge + Judgement + Target + Behaviour*, as shown in Table 7.13 below.

Table 7.13: Paring *it v-link ADJ of n to-inf.*

Element Pattern		Hinge	Judgement	Target	Behaviour
	<i>it</i>		ADJ + Prep.	NP	to-inf.
<i>it v-link ADJ of n to-inf</i>	it	was	rather courageous of	them	to accept
	it	was	kind of	you	to be so understanding ...

Similarly, it is certainly possible that noun patterns and verb patterns construct different semantic configurations (e.g. *his* [Target] *bravery* [Judgement]; *they* [Target] *generally succeed* [Judgement] *in portraying three sides and the roof of the house* [Scope]), which indicates that noun patterns and verb patterns have to be further explored so as to provide a more comprehensive and complete local grammar analysis of Judgement instances. This is also true for other types of attitudinal meanings; that is, it is desirable to take into consideration all types of grammar patterns so that a systematic and comprehensive local grammar of evaluation can be proposed (cf. Bednarek 2008: 72-96).

7.4.5.2 Quantifying the association between adjective complementation patterns Judgement

As noted earlier, local grammar description may be used to quantify the means by which one particular meaning can be expressed (Hunston 2002a: 178; cf. Bednarek 2007a,

2008: 95). Let us take Judgement: Capacity as an example. The analysis above shows that, as far as adjective complementation patterns are concerned, Judgement: Capacity can be realised by eight patterns: **ADJ about**, **ADJ at**, **ADJ with**, **ADJ for**, **ADJ of**, **ADJ in**, **ADJ to-inf.** and **ADJ to n**. Similarly, based on the above analysis, it is possible to identify and thus quantify those adjective complementation patterns by which the other types of Judgement can be realised respectively. This association has been briefly discussed in Section 6.2.2. For the sake of clarity, Table 7.14 (see below) is reproduced to show the association between adjective complementation patterns and JUDGEMENT.

Table 7.14: Quantifying the means by which Judgement meanings can be expressed

Category Pattern	Normality	Capacity	Tenacity	Veracity	Propriety	Emotivity
ADJ at	×	√	×	×	×	×
ADJ about	×	√	√	√	√	√
ADJ for	√	√	×	×	√	√
ADJ in	√	√	√	√	√	√
ADJ of	×	√	√	×	√	√
ADJ to n	√	√	√	√	√	√
ADJ towards	×	×	×	×	√	√
ADJ with	√	√	√	√	√	√
ADJ to-inf.	√	√	√	×	√	√
ADJ that	×	×	√	×	×	√

It is assumed that the ways to express judgement meanings could be quantified as long as noun and verb patterns (and other resources) associated with Judgement have also been exhaustively examined. Presumably, this procedure could be replicable. That is, based on the local grammar descriptions of different types of evaluative meanings, it may be possible to identify and thus quantify the ways in which different (sub)types of evaluative meanings (e.g. Affect, Appreciation) can be expressed. Arguably, this would at least be workable for inscribed evaluation.

7.4.5.3 Local grammars as a heuristic

There are some other observations worth discussing. Firstly, local grammar analysis of instances associated with evaluation appears to be in favour of Martin and his colleagues' three-way taxonomy of attitudinal meanings. In other words, Martin and his colleagues are probably right to make distinctions between the construal of emotions

(Affect), ethical evaluation (Judgement) and aesthetic evaluation (Appreciation). This is because instances associated with different types of evaluative meanings need to be parsed using different functional terms from a local grammar perspective. For the purpose of illustration, some examples are given and analysed below (see Table 7.15).

Table 7.15(1): Parsing adjective complementation patterns associated with Affect

Element	Emoter	Hinge	Emotion	Trigger
Pattern	NP	v-link	ADJ + Prep.	NP
ADJ with	She	was	pleased with	the followers
	Allen and the producer Michael Mills	were	happy with	the results

Table 7.15(2): Parsing adjective complementation patterns associated with Judgement

Element	Target	Hinge	Judgement	Patient
Pattern	NP	v-link	ADJ + Prep.	NP
ADJ with	I	was	friendly with	one of the local farmers

Table 7.15(3): Parsing adjective complementation patterns associated with Appreciation

Element	Target_{-thing}¹⁵	Hinge	Appreciation	Scope
Pattern	NP	v-link	ADJ + Prep.	NP
ADJ with	his fierce nationalism	remained	popular with	poorer people
	Salaries	had never been	comparable with	others in the record industry

As shown above, although the syntactic structures of these instances are similar, they have different semantic functions and thus need to be parsed using different local grammar patterns. This indicates that the distinctions drawn between the three types of attitudinal meanings do exist in terms of function, which largely supports the trichotomy of Attitude proposed in the APPRAISAL model (Martin 2000; Martin & White 2003; Martin & White 2005). Nevertheless, it has to be pointed out that local grammar analysis is only a potential way to assess the validity of the three-way classification of Attitude; the extent to which this could be successful or useful needs to be further explored.

¹⁵ For the purpose of demonstration, the term Target_{-thing} is used throughout this thesis to label the entity that is being appreciated. The question as to which terms should be used for a local grammar of Appreciation is beyond the scope of the current study, however, and will thus be left for future research.

Secondly, the analysis offers some insights into the automation of appraisal analysis from a local grammar approach. Simply put, the analysis highlights that local grammars of evaluation would need to specify how to parse all the items involved in complementation patterns, including the word-pattern combination, the elements complementing the patterns and the grammatical subject of an evaluative clause. This is because 1) the specification of word-pattern combination allows us to specify the exact type of evaluation that is realised by a given item, 2) the specification of items in the complementation pattern allows us to analyse these items in terms that are directly related to their discourse function, as shown, for example, in the distinction between Scope and Patient, and 3) the specification of the grammatical subject of an evaluative clause allows us to make the distinction between *Self Judgement* and *Non-self Judgement*. These observations are crucial for the automation of appraisal analysis, which will be discussed in more detail in Section 8.3.2.3.

Lastly, the analysis further confirms that patterns and meanings are associated. It has been argued that different senses of a word could be differentiated by the patterns each sense typically co-occurs with (e.g. Sinclair 1991; Hunston & Francis 1998, 2000). This suggests that patterns could be useful in distinguishing the different senses a word has. Based on the analysis above, what is worth adding is that the broader the meaning a word has (e.g. *good*, *right*), the more useful its patterning features could be in distinguishing its senses; for example, different senses of *good* can be distinguished by the patterns it co-occurs with, i.e. *good* in **ADJ at** is associated with the evaluation of a person's ability, *good* in **ADJ to n** is associated with the evaluation of a person's behaviour.

The analysis also shows that patterns themselves might be helpful for distinguishing meaning elements (also see Section 6.3.2). For instance, Reason is only realised by nominal phrase complementing the pattern **ADJ for** (though nominal phrases following the preposition *for* not only realise Reason), Behaviour is mostly associated with patterns which are complemented by a to-infinitive clause (e.g. **ADJ to-inf.**, **it v-link ADJ for/of n to-inf.**). This observation, apart from supporting Hunston's argument that "prepositions in particular serve to classify semantically the lexical words with which they frequently occur" (Hunston 2008: 272), further highlights that non/finite clause may also function as 'meaning classifier', as shown in the discussion of the pattern **ADJ to-inf.**

7.5 Summary

In this chapter, I have demonstrated how local grammars of evaluation can be built with the help of grammar patterns (e.g. adjective complementation patterns in the present study), which is exemplified with a local grammar of Judgement. I have first compared local grammar analysis with some related approaches (i.e. FrameNet, CPA and Transitivity analysis), aiming to identify the functional elements which can be used in the local grammar of Judgement. Drawing on insights from these approaches, functional elements (e.g. *Target*, *Scope*, *Reason*) were tentatively proposed for analysing instances associated with Judgement. Examples were then given and parsed to show the local grammar of Judgement. At the same time, however, it should be noted that the local grammar of Judgement has not been fully developed, due to the restriction of the realisational resources of Judgement to adjective complementation patterns.

The local grammar analysis, though incomplete, is insightful. To be specific, the analysis shows that, as far as adjective complementation patterns are concerned, instances associated with Judgement can be parsed with considerable consistency. The instances can be parsed using four general semantic configurations or local grammar patterns which are characteristic of Judgement, i.e. *Target + Hinge + Judgement + Scope*, *Target + Hinge + Judgement + Reason*, *Target + Hinge + Judgement + Behaviour*, *Target + Hinge + Judgement + Patient*. The considerable consistency of mapping meaning elements on to pattern elements further indicates the possibility of using the associated local grammar parser to enable ultimately the automatic analysis of appraisal.

Observations drawn from the local grammar analysis were also discussed. It has been demonstrated that it is highly possible to identify other local grammar patterns involved with Judgement if other patterns were analysed; this further requires more investigation into the association between grammar patterns and evaluation. Moreover, it has been shown that local grammars could be used to quantify the means by which one particular (sub)type of (inscribed) evaluative meanings can be expressed. Lastly, it is observed that instances associated with different types of attitudinal meanings need to be parsed differently from a local grammar perspective, which raises the possibility of using local grammar analysis to assess the validity of Martin and his colleagues' three-way taxonomy of Attitude.

CHAPTER 8 LOCAL GRAMMAR OF JUDGEMENT REVISITED

8.1. Introduction

The local grammar analysis appears to be simple and straightforward, as shown in Chapter 7. However, I would say that no matter how simple a phenomenon seems to be, it is, in fact, rather complicated if it is dug into deep enough. This is also the case for analysing Judgement instances from a local grammar perspective. The complexity and difficulty I have encountered when developing the local grammar of Judgement will be discussed in this chapter. More specifically, the discussion focuses on three special cases, i.e. cases where the local grammar analysis is dependent on 1) types of attitudinal target, 2) elements in complementation patterns, and 3) the social-cultural or situational context (Section 8.2).

In addition, some other issues related to the local grammar of Judgement will also be discussed; these issues are: 1) what is its significance, and 2) whether the methodology used to develop the local grammar of Judgement can be replicated to develop local grammars of other types of attitudinal meanings (i.e. Affect and Appreciation). It will be argued that local grammar analysis, in theory, offers an alternative way to model attitudinal meanings, which is exemplified by devising an alternative framework of Judgement based on the local grammar of Judgement (Section 8.3.1); it will be further argued that local grammar analysis, in practice, offers some insights into the automation of appraisal analysis (Section 8.3.2). As for the replicability of the methodology, it will be demonstrated that the methods used in the present study can be replicated to build local grammars of other types of Attitude, in particular a local grammar of Appreciation (Section 8.4).

8.2 Local Grammar Analysis and Some Special Cases

This section discusses the analysis of some special cases from a local grammar perspective. They are 1) cases where one same item realises different types of Attitude, depending on the attitudinal target (Section 8.2.1), 2) cases where the analysis depends on the noun phrases in complementation patterns (Section 8.2.2), and 3) cases where the analysis is dependent on the social-cultural or situational context (Section 8.2.3).

8.2.1 Cases where the analysis depends on the attitudinal target

I have argued that attitudinal target (i.e. whether the referent of the appraised entity is a person or a thing) should be taken into consideration when classifying attitudinal resources, because the exact type of evaluation realised by an item may be dependent on the type of attitudinal target (see Section 6.3.1.1). This point will become clearer when we consider the following concordance lines.

1	GT1 370	she was	<i>famous for</i>	her witty, outrageous remarks
2	GSX 361	The nursery was	<i>famous for</i>	palms and orchids
3	GTG 1095	she was	<i>influential in</i>	defining the syllabus of the COS' school of sociology
4	GTF 1324	her speeches were	<i>influential in</i>	persuading Americans of the value of the United Nations
5	GTE 826	he was	<i>worthy of</i>	the admiration
6	AMC 374	the show was	<i>worthy of</i>	the Cambridge Footlights
7	GT7 119	he was	<i>popular with</i>	his students
8	G3R 941	his fierce nationalism remained	<i>popular with</i>	poorer people and the clergy

In terms of Appraisal, lexical items like *famous for*, *influential in*, *worthy of* and *popular with* can realise either Judgement or Appreciation, depending on the referent of the attitudinal target. To be specific, when the appraised entity indicates a person, these items are associated with Judgement, as shown in lines 1, 3, 5 and 7; whereas when the appraised entity indicates a thing, they are associated with Appreciation, as shown in lines 2, 4, 6 and 8. This, on the one hand, supports the argument that both attitudinal lexis and attitudinal target are of equal significance in classifying appraisal resources (see Section 6.3.1.1). On the other hand, this needs to be taken into account in local grammar analyses, because local grammars work with functional categories that are characteristic of each semantic domain (e.g. Judgement and Appreciation here). That is to say, instances associated with each type of Attitude need to be analysed using different functional terms, as shown in Table 8.1 below.

Table 8.1(1): Parsing instances associated with Judgement

Element	Target	Hinge	Judgement	Reason/Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ for	she	was	famous for	her witty outrageous remarks
ADJ in	she	was	influential in	defining the syllabus of the COS' school of sociology
ADJ of	he	was	worthy of	admiration
ADJ with	he	was	popular with	his student

Table 8.1(2): Parsing instances associated with Appreciation

Element	Target-thing	Hinge	Appreciation	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ for	The nursery	was	famous for	palms and orchids
ADJ in	her speeches	were	influential	in persuading Americans of the value of the United Nations
ADJ of	the show	was	worthy of	Cambridge's Footlights
ADJ with	his fierce nationalism	remained	popular with	poorer people and the clergy

Furthermore, it is observed that when items occurring in the pattern **ADJ for** are associated with Judgement: Normality (e.g. *famous for*, *remarkable for*, *renowned for*, *notable for*, *notorious for*, *famed for*, *well-known for*), nominal phrases complementing these lexical items always indicates the reason, i.e. why someone is special (also see Section 7.4.4.6). Some examples are given below (see Table 8.2).

Table 8.2: Parsing examples of **ADJ for** associated with Judgement: Normality

Element	Target	Hinge	Judgement: Normality	Reason
Pattern	NP	v-link	ADJ + prep.	NP
ADJ for	she	was	famous for	her witty outrageous remarks
	he	was	renowned for	his brilliance and charm
	He	<i>was</i>	notable for	commissioning works of art
	he	... became	notorious for	his stern management

This is different from cases where these items are used to express appreciating meanings. To put it simply, when these items are used to express appreciating meanings, it is more plausible to interpret the elements complementing the pattern as Scope than as Reason, as shown in Table 8.3 below.

Table 8.3: Parsing examples of **ADJ for** associated with Appreciation

Element	Target-thing	Hinge	Appreciation	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ for	the other	was	famous for	its grapes and wines
	Parma	became	renowned for	its elegance ...
	her book	is	notable for	its attempt to combine good living with economy
	The twentieth century	has become	notorious for	its rejection of rationality

The analysis above should have made clear that there are some cases where the local grammar analysis is dependent on attitudinal target. This indicates that types of

attitudinal target should be specified in local grammar descriptions if we want to enable the automatic appraisal analysis with the help of the associated local grammar parser. This will be further discussed in Section 8.3.2.3 below.

Meanwhile, it is perhaps worth noting that it is not the case that nominal phrases complementing the pattern **ADJ for** should always be parsed as Reason. The general observation is that nominal phrases following those items which are associated with Judgement: Normality should be parsed as Reason; otherwise nominal phrases complementing the pattern **ADJ for** should be parsed as Scope (also see Section 7.4.4)¹⁶. Some instances are given below.

9	B2E 941	My husband has not been considered	<i>fit for</i>	Navy service
10	GT5 242	women became	<i>eligible for</i>	election as guardians
11	A68 903	he was not	<i>suitable for</i>	other kinds of clergyman
12	GT5 202	He was described ...	<i>slow for</i>	a very celebrated canvasser

Using the ‘paraphrase test’ introduced in Section 7.4.1, it is clear that the *for*-phrases in these instances are more plausible to be paraphrased as *as far as X is concerned*. In instance 9, for example, it is more acceptable to paraphrase it as *as far as Navy service is concerned, my husband has not been considered fit*, whereas it has a different meaning if it is paraphrased as *because of Navy service, my husband has not been considered fit*. The point, then, is that when the pattern **ADJ for** is associated with other types of Judgement, other than Normality, nominal phrases complementing the pattern are more plausibly parsed as Scope than as Reason. The analyses of instances 9 – 12 are presented in Table 8.4 below.

Table 8.4: Parsing examples of **ADJ for** associated with other types of Judgement

Element / Pattern	Target	Hinge	Judgement	Scope
	NP	v-link	ADJ + prep.	NP
ADJ for	My husband	has not been considered	fit for	Navy service
	women	became	eligible for	election as guardians
	he	was not	suitable for	other kinds of clergyman
	he	was described	slow for	a very celebrated canvasser

8.2.2 Cases where the analysis depends on the complements

Apart from those cases where the local grammar analysis is dependent on the attitudinal

¹⁶ It needs to be pointed out that there is an exception, i.e. *stupid for*, as discussed in Section 7.4.4.1.

target, there also are cases where the analysis is dependent on the complements. This is because nominal phrases complementing the patterns may, for example, indicate a person (e.g. instances 13 and 14) or indicate a thing (e.g. instances 15 and 16).

13	ADP 2034		he is very	<i>good with</i>	the crew
14	B2E 695		she was so	<i>good with</i>	children
15	BN6 1342		I'm not very	<i>good with</i>	things like that
16	G39 493	Neddy Fawcett, ...	was very	<i>good with</i>	mechanical things

Since local grammars analyse each element “in terms that related directly to its discourse function” (Hunston 2011: 142), nominal phrases indicating a person and those indicating a thing should thus be analysed differently. Moreover, the exact (sub)type of evaluation associated with one particular item might also be dependent on the complement. For example, *good with* realises Judgement: Propriety when it is complemented by nominal phrases indicating a person, having the meaning of *being kind or friendly to someone*; however, it realises Judgement: Capacity when it is complemented by nominal phrases indicating a thing, having a meaning similar to *good at* (see Table 8.5 below).

Table 8.5(1): *good with* associated with Propriety

Element / Pattern	Target	Hinge	Judgement: Propriety	Patient
	NP	v-link	ADJ + prep.	NP
ADJ with	he	is	very good with	the crew
	she	was	so good with	children

Table 8.5(2): *good with* associated with Capacity

Element / Pattern	Target	Hinge	Judgement: Capacity	Scope
	NP	v-link	ADJ + prep.	NP
ADJ with	I	'm not	very good with	things like that
	Neddy Fawcett ...	was	very good with	mechanical things

As shown above, one same lexical item may realise different types of Judgement, depending on the complements. This suggests that, apart from the *adjective + pattern* sequence, local grammars of evaluation would also need to specify the referent of the items in the complementation pattern. This further offers some insights into the automation of appraisal analysis. That is, this indicates that the associated parser has to be trained to recognise the referent of the complements. I will return to this issue in Section 8.3.2.3 below.

8.2.3 Cases where the analysis depends on the social-cultural context

Studies on evaluative language have shown that there are cases where “[a] *single lexical item may also realize the conflation of two or more evaluations*” (Lemke 1998, italics original). This phenomenon has been discussed under different terms; for instance, ‘evaluative metaphor’ in (Lemke 1998), ‘polyphony’ in Bednarek (2007b), ‘evaluative interplay or conflation’ in Bednarek (2006, 2008b), ‘multilayered evaluation’ in Hunston (2011), and ‘Russian doll syndrome’ in Thompson (2014a).

Particularly worth mentioning is Bednarek (2007b) who examines the polyphonic nature of evaluative language from both typological and topological perspectives. She suggests that “there are at least four different phenomena involving polyphony and Appraisal” (Bednarek 2007b: 111); they are:

Fused Appraisals: a lexical item can ‘infuse’ meanings from **simultaneous** typological systems such as Attitude, Graduation and Engagement;

Invoked Appraisals: a lexical item can ‘inscribe’ meaning from one Appraisal system (e.g. Judgement) and ‘invoke’ meaning from **another** appraisal system (e.g. Appreciation);

Border phenomena: a lexical item can be categorised as realising **either** of two Appraisal systems (e.g. Affect or Appreciation), depending on which criteria are applied by the linguist;

Appraisal blends: a lexical item can ‘conflate’ (simultaneously express) different meanings from **within** an Appraisal system (such as Attitude) or subsystems (such as Affect, Appreciation or Judgement).

(Bednarek 2007b: 111, italics and bold face original)

Among the four types of polyphonic phenomena, closely related to cases where a single lexical item may realise different (sub)types of evaluations is *appraisal blends* which, according to Bednarek (2007b: 125), means that lexical items can simultaneously inscribe two or more kinds of appraisal (e.g. *sneaky* realises both Judgement: Veracity and Judgement: Capacity). *Appraisal blends* can be further divided into two types, i.e. “blends within Attitude (conflating Affect/Appreciation/Judgement) and blends within an attitude subsystem (conflating Affect/Appreciation/Judgement subcategories)” (Bednarek 2007b: 125).

Since the focus of the current study is on an Attitude subsystem, i.e. JUDGEMENT, I will only discuss appraisal blends within attitude subsystems. Bednarek admits that

her discussion of appraisal blends within attitude subsystems “is least complete, for lack of data” (Bednarek 2007b: 130). Two illustrative examples of conflation within an attitude subsystem she gave are *fear* and *sneaky*. It is argued that *fear* could be considered as blending within Affect: Non-desire + Insecurity, and *sneaky* blending within Judgement: Capacity + Veracity, as mentioned above.

Regarding Bednarek’s (2007b) discussion, two aspects would need to be clarified. Firstly, the incomplete discussion may not be a result of the lack of data, but that this type of appraisal polyphony occurs rather infrequently. As shown in the current study, though I have consulted a 3.5-million-words corpus (which is not too large, but is not too small either), only two such cases have been found, i.e. *ignorant about*, *cunning in*. Secondly, it is perhaps plausible to argue that Bednarek’s discussion of appraisal blends within Attitude subsystem actually refers to cases where the interpretation is dependent on social-cultural or situational context (also see Section 7.4.4.1). This point may be illustrated by the analyses of the two examples found in the CoB (see Table 8.6 below).

Table 8.6(1): Local grammar analysis of *ignorant about*

Element	Target/Evaluator	Hinge	Judgement: Propriety	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ about	I	was	ignorant about	its structure...
	Target/Evaluator	Hinge	Judgement: Capacity	Scope

Table 8.6(2): Local grammar analysis of *cunning in*

Element	Target/Evaluator	Hinge	Judgement: Veracity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ in	I	became	more cunning in	finding ways ...
	Target/Evaluator	Hinge	Judgement: Propriety	Scope

The upshot of the discussion is that there are cases (though very rare) whose interpretation is largely dependent on the social-cultural or situational context, which suggests that non-linguistic contextual information has to be taken into account when performing appraisal analysis. While this is easy for manual analysis, it is rather difficult for the parser to recognise the non-linguistic context. In consequence, a solution has to be suggested in order to assist the automatic appraisal analysis of such cases. My suggestion is to parse these cases using both possible local grammar patterns at the first stage, and then to examine manually which one is more plausible in that specific context. Since cases like these are relatively rare (e.g. only two lexical items

were found in the CoB), this would not cause us too much trouble in examining manually which interpretation is more plausible.

So far, I have discussed how to analyse some special cases from a local grammar perspective. The discussion, on the one hand, contributes to a more complete local grammar description of clauses associated with Judgement, and on the other hand, offers some insights into the automation of appraisal analysis using the associated local grammar parser, which will be further discussed in Section 8.3.2 below.

8.3 Theoretical and Practical Considerations of the Local Grammar of Judgement

It will be argued in this section that local grammar description is of both theoretical and practical significance. Theoretically, it may provide an alternative way to model the framework of Judgement (or other types of attitudinal meanings); practically, it informs us as to what we need to do if we want to enable ultimately the automation of appraisal analysis with the help of the associated local grammar parser.

8.3.1 Local grammar and the framework of Judgement

8.3.1.1 An alternative way to devise the JUDGEMENT system

While largely accepting and appreciating the systematicity of the original JUDGEMENT system, I have pointed out some problematic issues which might undermine its significance and success (e.g. the original JUDGEMENT system cannot deal effectively with resources used to construe attitudes towards emotional types of personality). As a solution, I have suggested a few modifications, aiming to improve the system (see Chapter 4). Based on this refined JUDGEMENT system, I have further developed a local grammar of Judgement (see Section 7.4). Interestingly, the local grammar analysis suggests that there might be an alternative way to devise the framework of Judgement, which further indicates that local grammars may be useful for modelling attitudinal meanings in general.

This alternative is largely based on the functional analysis of those instances which are associated with judgement meanings. I have demonstrated how these instances can be parsed using the local grammar elements (see Section 7.4 and Section 8.2), which shows that four semantic configurations (or local grammar patterns) that are characteristic of Judgement can be generalised. The semantic configurations are *Target + Hinge + Judgement + Scope*, *Target + Hinge + Judgement + Reason*, *Target + Hinge*

+ *Judgement + Behaviour*, *Target + Hinge + Judgement + Patient*. It is based on these semantic configurations that this alternative framework of Judgement could be devised.

The fundamental idea of deriving the framework of Judgement (or other types of Attitude) from a local grammar approach is that (evaluative) meanings can be represented as semantic configurations. In terms of the present study, Judgement can be seen as being realised by those semantic configurations abstracted from the local grammar analysis. These semantic configurations themselves are in turn realised by particular grammar pattern/s. For example, the configuration *Target + Hinge + Judgement + Reason* is prototypically realised by the pattern **ADJ for**.

At this point, what needs to be noted is that semantic configurations associated with Judgement have not been exhaustively identified, due to the fact that this study is centred on adjective complementation patterns (cf. Section 7.4.5.1). Ellipsis is thus used to indicate that there are potentially more such semantic configurations and other realisations for each particular semantic configuration.

This alternative framework of Judgement is shown in Figure 8.1 below.

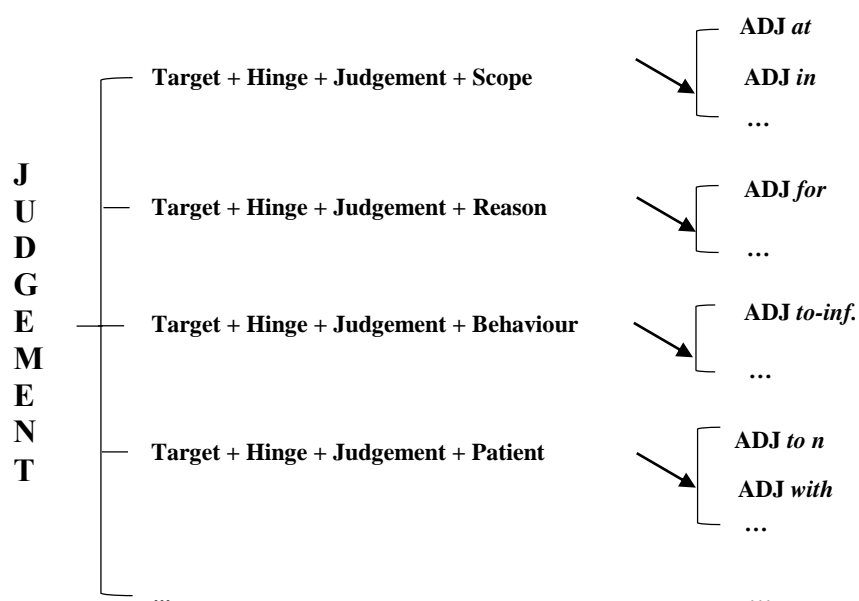


Figure 8.1: Part of a local grammar based framework of Judgement

The figure above presents a partial framework of Judgement modelled from a local grammar perspective. One advantage of this alternative framework might be that it brings closer form and meaning in the sense that the attitudinal meaning potential of an item is discussed with respect to its patterned behaviours, as shown in Figure 8.1. More notably, from a theoretical perspective, this model fits into the systemic functional

concept *realisation* (Halliday & Matthiessen 2004: 19-31; Matthiessen *et al* 2010: 171-173). In SFL, language is viewed as a system which consists of different strata, i.e. phonology/graphology, lexicogrammar, and semantics, and the relationship between them is designated as one of realisation, i.e. semantics is realised by lexicogrammar which in turn is realised by phonology/graphology. Similarly, Judgement as a semantic domain, semantic configurations and language patterns can be viewed as being located at different strata: Judgement as a semantic domain corresponds to semantics, semantic configuration to lexicogrammar, and pattern to wording respectively. They can be analogically designated with a relationship of realisation. That is to say, Judgement can be seen as being realised by semantic configurations which in turn are realised by (adjective complementation) patterns.

Moreover, SFL views system and instance as a cline of *instantiation* (Halliday & Matthiessen 2004: 26-29). From the perspective of instantiation, JUDGEMENT (as system) can be considered as being instantiated by sequences (as instance) associated with the ethical evaluation of human beings. In other words, JUDGEMENT as a system and instances associated with Judgement can be viewed as a cline of instantiation. This realisation-instantiation relationship is shown in Figure 8.2 below.

REALISATION / INSTANTIATION	JUDGEMENT ← → Instance	
Semantics	Meaning	Judgement
Lexicogrammar	Semantic configuration	[Target][Hinge][Judgement][Scope] [Target][Hinge][Judgement][Behaviour] [Target][Hinge][Judgement][Reason] [Target][Hinge][Judgement][Patient] ...
Wording	Patterns	Adjective complementation patterns (e.g. ADJ for , ADJ with , ADJ to-inf.) ...

Figure 8.2: The realisation-instantiation matrix of Judgement

8.3.1.2 A comparison between the two frameworks of Judgement

The system of JUDGEMENT can either be modified on the basis of the APPRAISAL model (see Chapter 4) or be devised from an entirely different perspective, i.e. the local grammar approach. In consequence, it is necessary to make a comparison between them.

The two approaches share a few things in common. For example, they both deal with one specific meaning area, i.e. the ethical evaluation of human character and/or behaviour; they are developed from analysing linguistic resources related to the assessment of human beings; and they both offer a framework which can be used to explain (more or less satisfactorily) how human beings are evaluated. At the same time, there are some significant differences between them as well.

From a methodological perspective, the refined JUDGEMENT system proposed in Chapter 4 is based on interrogating or diagnosing the original system, while the alternative devised in this section is based on analysing those instances which are associated with Judgement from a local grammar perspective.

Refining through diagnosing the original system of JUDGEMENT is to a great extent based on the APPRAISAL model (Martin 2000; Martin & White 2005), and consequently, the revised system appears only slightly different from what it used to be, which might make it easier to be accepted (or rejected). Nevertheless, it has to be pointed out that this refined JUDGEMENT system is more comprehensive in that it is capable of accounting for the Judgement phenomenon, i.e. Emotivity, which has not been accounted for so far. It has also been demonstrated that this refined system can be employed to classify more realistically the Judgement lexis (see Section 6.3.2). This is an advantage which neither the original JUDGEMENT system nor the alternative framework derived from the local grammar approach has.

A rather different system network of Judgement is devised through analysing those instances associated with Judgement from a local grammar perspective. The fact that Judgement instances can be parsed with a few local grammar elements indicates that considerable consistency may be achieved of mapping meaning elements on to pattern elements. In other words, no matter how diverse the Judgement instances in form are, they may be considerably consistent in meaning. For instance, patterns such as **ADJ at**, **ADJ with** and **ADJ about**, regardless of the difference and diversity in form (i.e. complemented by different prepositions), can all be parsed using the local grammar pattern *Target + Hinge + Judgement + Scope*. This provides an alternative way to

model the framework of Judgement, which brings closer form and meaning, as noted in Section 8.3.1.1. At the same time, it also appears to be true that this alternative framework is less comprehensive because complementation patterns are not the only linguistic resources which can be used to express Judgement. For example, instances like *he is a responsible man* have not been accounted for yet, let alone the large number of cases of invoked evaluation.

To summarise, local grammar analysis may be useful for modelling the framework of attitudinal meanings. As shown above, four semantic configurations involved with Judgement can be generalised by analysing instances associated with ethical evaluation of human beings. With these semantic configurations, an alternative framework of Judgement was proposed. It has been further argued that this alternative framework is semantically more consistent, though it is explanatorily less powerful.

8.3.2 Local grammar and the automatic analysis of appraisal

It has been suggested that local grammars might have the potential to facilitate the automatic analysis of appraisal (Hunston & Sinclair 2000; Bloom 2011). This is a very challenging task though. It involves a number of critical issues that need to be clarified, some of which will be addressed in this section. To be specific, I aim to explore what local grammar analysis (see Section 7.4.4 and Section 8.2) can tell us about the automation of appraisal analysis. I will first review some studies which have attempted to perform automatically appraisal analysis; the intention is to justify the necessity of adopting a local grammar approach to assist the automation of appraisal analysis. I will then discuss what information has to be captured by local grammars of evaluation so as to achieve ultimately the aim of performing the analytic task automatically and successfully with the help of the associated parser.

8.3.2.1 Studies on the automation of appraisal analysis

The issue as to how to analyse automatically appraisal expressions has been gaining increasing attention (e.g. Taboada & Grieve 2004; Wiebe, Wilson & Cardie 2005; Daille, Dubreil, Monceaux & Vernier 2011; Baker 2012; Taboada & Carretero 2012; Read & Carroll 2012; O'Donnell 2012, 2013; Almutairi 2013). Because of space constraints, I will mainly discuss O'Donnell (2012, 2013) and Almutairi (2013) which are particularly worth mentioning because they are the most relevant studies and represent the state-of-the-art of this effort.

O'Donnell has been interested in combining computational techniques and systemic functional research for decades (O'Donnell 1994, 2004, 2005, 2008a, 2012, 2013; O'Donnell & Bateman 2005). He developed the UAM corpus tool (see O'Donnell 2005, 2008a, b) which is specifically designed for annotating and interrogating a corpus from a systemic functional perspective. The UAM corpus tool is a user-friendly and free downloadable software (<http://www.wagsoft.com/CorpusTool/index.html>). This corpus tool has also been applied to appraisal research (e.g. O'Donnell 2012, 2013).

O'Donnell (2012) is mainly concerned with the demonstration of how the UAM corpus tool can be used to investigate attitudes in text and visualise the outcome of the analysis. It is demonstrated that this corpus tool can help to minimise human intervention and is adaptable to individual research. More recently, O'Donnell (2013) employs the corpus tool to explore identity (in terms of affiliation and value structure) of the writer/speaker and argues that appraisal theory and corpus linguistic techniques together can provide “a powerful means to pull useful information from text about writer identity” (O'Donnell 2013).

Notwithstanding the usefulness of UAM, it has to be pointed out that UAM may only be of limited use in facilitating the automatic appraisal analysis, because it only provides an interface for manual annotation of texts (which is time-consuming). As a consequence, UAM may not be helpful for large-scale analysis. However, it is important to strike a balance between the depth of analysis and the volume of analysed texts so as to achieve results with a greater amount of detail, as has been suggested in Hunston (2014) and Matthiessen (2014a). This indicates that there is a need to develop other approaches which can be used to assist large-scale appraisal analysis.

A similar study is conducted by Almutairi (2013) who uses the AppAnn system to explore how to visualize the distribution of appraisal in texts. As introduced by Almutairi, AppAnn is designed to facilitate text annotation and information visualisation. It has two main functions: *corpus utilities* and *discourse visualisation*. The first function is concerned with “importing raw text data, system network design, text annotations and a method for ATTITUDE force approximation” (Almutairi 2013). The function of *discourse visualisation* can be used to code the text and to visualize the linguistic data. These data visualisation techniques are subsequently applied in the analysis of three texts to demonstrate how AppAnn can be used to facilitate discourse analysis.

Overall, Almutairi's (2013) study shows that AppAnn is a powerful software which can be employed to visualise dynamic linguistic information. More importantly, Almutairi's study shows that computer technology is conducive to linguistic research, e.g. to annotate texts, to visualise linguistic data. However, AppAnn is considered as a fine-grained but small-scale data visualisation technique (Almutairi 2013: 698). This means that the usefulness of AppAnn in visualising linguistic data is limited, because the visualisation is largely based on manual analysis (which is time-consuming).

In general, both UAM and AppAnn are user-friendly corpus tools which could be powerful and helpful for appraisal research. Nevertheless, one undeniable fact of both UAM and AppAnn is that they only provide an interface for manual analysis of appraisal, which means that the researcher has to read and to manually annotate the texts. In other words, UAM and AppAnn are more useful in small-scale analysis, but might be less so in large-scale analysis (simply because manual annotation is work-intensive and time-consuming). This problem might be (potentially) solved using the associated local grammar parser because the local grammar parser is designed to facilitate the automatic identification and analysis of evaluative clauses in corpora.

However, it should be said at the outset that the present study does not attempt to develop the associated parser based on the local grammar analysis; what this study attempts to do is to discuss what information needs to be captured in local grammars of evaluation if our ultimate aim is to enable the automation of appraisal analysis with the help of the corresponding parser.

8.3.2.2 The alignment of meaning elements and pattern elements

It has been asserted that “[t]he concept of a parser is inseparable from the concept of a grammar” (Barnbrook 2002: 59). This is quite an ambitious statement, because it indicates that automatic parsing would be possible provided that the grammar is robust enough to be translated into algorithm to develop the associated parser. Nevertheless, the fact that the grammatical description does have a role to play in this undertaking can by no means be denied. Basically, the local grammar description presented in Section 7.4.4 and Section 8.2 can be used as the grammar required for developing the associated parser. Although, admittedly, this is only a partial grammar for Judgement, it can be used to illustrate what we have to do if we want to enable the automation of appraisal analysis by using the associated local grammar parser. However, apart from the local grammar description, there are some other issues (e.g. the structural variation,

how meaning elements can be aligned with pattern elements) concerning the automation of appraisal analysis which need to be addressed.

The first issue is concerned with the specification of structural variation. The semantic mapping involved in a local grammar approach is to some extent similar to Semantic Role Labelling (SRL) in computational linguistics. Semantic role labelling, which is currently a research tradition in computational linguistics, is a technique attempting to annotate automatically the naturally occurring texts with semantic roles (Moreda *et al* 2007; Pradhan, Ward & Martin 2008; Lim, Lee & Ra 2013). Researchers in this tradition argue that “[s]emantic roles are closely related to syntax, and, therefore, automatic SRL heavily relies on the syntactic structure of the sentence” (Marquez *et al* 2008: 154). This is also true for local grammars.

As noted in Section 3.3, local grammars involve the mapping of meaning elements on to pattern/structural elements. This process of mapping meaning elements on to pattern elements also relies heavily on the specification of the syntactic structure, as will be shown below. The restriction of grammar patterns to adjective complementation patterns in the present study makes it relatively easy to specify the structures of those instances associated with Judgement. This can be demonstrated by analysing a prototypical example: *she was good at art*, see Figure 8.3 below.

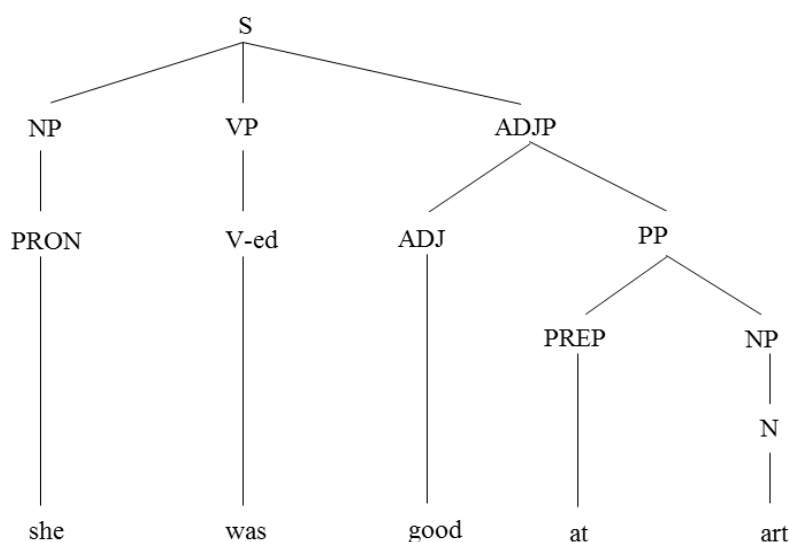


Figure 8.3: Syntactic analysis of *she was good at art*

The tree diagram shows the structure of a prototypical instance which instantiates an adjective complementation pattern and is associated with Judgement. In terms of semantic parsing, the syntactic structure can be further simplified as Figure 8.4 below.



Figure 8.4: Simplifying the structure

Clearly, there are some structural variations of adjective complementation patterns. For example, for the slot of *adjective + pattern* sequence, there are three possibilities as far as adjective complementation patterns are concerned. To be specific, adjectives may be complemented with prepositional phrase, *to*-infinitive clause, and *that*- clause. Correspondingly, the complement occurring on the right of the *adjective + pattern* sequence has three possibilities. The first has been discussed above, i.e. when the adjective is followed by prepositions, it is nominal phrases (NP) that complement the pattern. The other two possibilities are related to non/finite clause. That is, when the adjective is followed by *to-inf.* or *that*-clause, it is verbal phrases (VP) and embedded clauses (CL.) that complement the pattern respectively. This can be generalised as below (see Figure 8.5).



Figure 8.5: Structural variation of Judgement instances

Having discussed the structural or pattern elements, the next issue needs to be addressed is how the meaning elements and pattern elements should be aligned. The general principles are stated as follows. Firstly, the *adjective + pattern* combination realises Judgement, i.e. Normality, Capacity, Tenacity, Veracity, Propriety and Emotivity. Secondly, the NP on the left of the *adjective + pattern* sequence realises the Target in *Non-self Judgement* and realises both Target and Evaluator in *Self Judgement* (see Section 7.4.2 for the distinction between *Self Judgement* and *Non-self Judgement*). Lastly, the NP / VP / CL on the right of the *adjective + pattern* sequence has four possibilities: when the nominal phrase following the preposition indicates 1) a person (e.g. pronouns, proper names), it should be parsed as Patient, 2) a thing (i.e. non-human object), it should be parsed as Scope; 3) when it is a *that*-clause complementing the adjectives, the embedded clause should be parsed as Scope; and 4) when it is a *to*-infinitive clause complementing the adjectives, the verb phrase following the infinitive indicator *to* should be parsed as Behaviour. Moreover, it is worth noting that the parsing

of nominal phrases following the preposition *for* is a little complicated: it may be parsed either as Scope or as Reason, as discussed in Section 8.2.1. This might require a seed list of those lexical items which demand the nominal phrase be parsed as Reason (or Scope) be input into the computer program so that it can perform the specific parsing.

Based on the description above, the alignment of meaning elements and pattern elements can be summarised as below (see Figure 8.6).

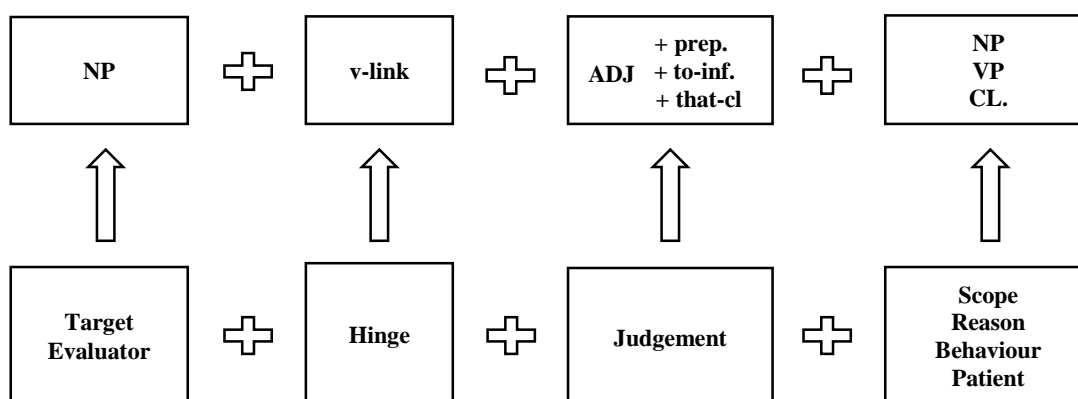


Figure 8.6: Mapping meaning elements on to pattern elements

8.3.2.3 Local grammar and the automation of appraisal analysis

From a local grammar perspective, the mapping of meaning elements on to pattern elements appears to be simple and straightforward, because each pattern element can be mapped on to one or more meaning elements, as shown in Figure 8.6 above. However, what is revealed by the local grammar analysis is that the specific parsing, i.e. mapping automatically the meaning elements on to pattern elements, greatly depends on (at least) three aspects. The first aspect is that the successful parsing depends on, most crucially, the specification of *adjective + pattern* combination. Secondly, the parsing depends on the specification of the referent of attitudinal target, that is, whether the appraised entity refers to a person or a thing, and in cases where it refers to a person, whether it refers to the first person or non-first person. Lastly, the parsing depends on the specification of the referent of the items in the complementation pattern, i.e. whether the item refers to a thing, a person or an action. These aspects are discussed respectively below.

(I) *adjective + pattern combination*

It has been suggested that “it is the pattern as much as the adjective itself that construes the evaluative meaning” (Hunston 2011: 134). This indicates that the automation of

appraisal analysis has to take into account the co-occurrence of adjectives and patterns. In other words, local grammars of evaluation would need to be centred on the *word + pattern* combination. This allows greater specification; that is, if the focus of local grammars of evaluation is put on the *word + pattern* combination, it allows us to make distinctions between types of evaluation, e.g. types of Judgement in the current study.

To make this point clearer, examples are first given to show why the local grammars of evaluation based on patterns only cannot be used to facilitate the parsing (see Table 8.7 below).

Table 8.7(1): ADJ *in* associated with Normality

Element	Target	Hinge	Judgement: Normality	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>in</i>	he	was	outstanding in	charity and compassion
	he	was	fortunate in	finding a good post

Table 8.7(2): ADJ *in* associated with Capacity

Element	Target	Hinge	Judgement: Capacity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>in</i>	he	was	instrumental in	establishing the Mechanics' Magazine
	Frank	was	successful in	getting the job

Table 8.7(3): ADJ *in* associated with Tenacity

Element	Target	Hinge	Judgement: Tenacity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>in</i>	he	was ...	reliable in	emergencies
	he	would be	most courageous in	facing hostility in discussion

Table 8.7(4): ADJ *in* associated with Veracity

Element	Target	Hinge	Judgement: Veracity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>in</i>	Zborowski	was	genuine in	his interest
	He	was	... straightforward in	projecting his philosophy

Table 8.7(5): ADJ *in* associated with Propriety

Element	Target	Hinge	Judgement: Propriety	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>in</i>	he	was	unfailingly modest in	behaviour
	Mackmurdo	was	... generous in	acknowledging the contributions of others

Table 8.7(6): ADJ *in* associated with Emotivity

Element	Target	Hinge	Judgement: Emotivity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>in</i>	Lapworth	was	passionate in	his search for truth
	Rendel	was	... confident in	his views

The analysis above shows that one pattern may be associated with different types of Judgement, depending on the adjectives occurring in the pattern. Together with the observation that most adjective complementation patterns are shared by all three types of attitudinal meanings (i.e. Affect, Judgement and Appreciation), it can be reasonably argued that it would not be possible to enable the automatic parsing by specifying patterns only.

Then, one may wonder whether it is possible to perform automatically the analytic task by focusing on individual words, because the analysis above seems to suggest that it is the word that realises evaluation. It should be pointed out that this would not work either, simply because patterns and meanings are connected, as has been illustrated in a number of studies (e.g. Hunston & Francis 1998, 2000; Hunston 2003b; Römer & Schulze 2010; Hanks 2013). A good example in case is the adjective *good*, as shown in the analyses below (see Table 8.8).

Table 8.8(1): *good* in ADJ *at*

Element	Target	Hinge	Judgement: Capacity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>at</i>	he	was	also good at	making enemies by speaking his mind

Table 8.8(2): *good* in ADJ *with*

Element	Target	Hinge	Judgement: Propriety	Patient
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>with</i>	he	is	very good with	the crew

Table 8.8(3): *good* in ADJ *for*

Element	Target_{-thing}	Hinge	Appreciation: Valuation	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ <i>for</i>	these things	are	not good for	our life support system

Table 8.8(4): *good* in ADJ about

Element / Pattern	Emoter	Hinge	Emotion	Trigger
	NP	v-link	ADJ + prep.	NP
ADJ about	I	naturally felt	good about	it

As can be seen from Table 8.8, *good* may realise different types of evaluation, depending on the pattern with which it co-occurs. More specifically, *good* realises Judgement when it is used in **ADJ at** and **ADJ with**; it may realise Appreciation when used in **ADJ for**; it typically collocates with *FEEL* when used in **ADJ about**, in which case it realises Affect in terms of Appraisal. What is more, even when *good* is associated with Judgement, it may realise different types of Judgement; for example, *good* realises Capacity in **ADJ at** and Propriety in **ADJ with** (sometimes *good* in **ADJ with** can also realise Capacity, see Section 8.2.2). This is not only true for *good*, but is also true for most of the general adjectives (e.g. *right*, *guilty*, *wrong*, *bad*). *right* is taken as another example to illustrate this point; the analyses of some examples of *right* are presented in Table 8.9 below.

Table 8.9(1): *right* in ADJ about

Element / Pattern	Target	Hinge	Judgement: Capacity	Scope
	NP	v-link	ADJ + prep.	NP
ADJ about	Nellie	was	always right about	things
	Mandel	is	right about	its being ‘unified powerfully’

Table 8.9(2): *right* in ADJ in

Element / Pattern	Target	Hinge	Judgement: Capacity	Behaviour
	NP	v-link	ADJ + prep.	NP
ADJ in	he	was	surely right in	his assumption
	Ackroyd	is	right in	his surmise that ...

Table 8.9(3): *right* in ADJ to-inf.

Element / Pattern	Target	Hinge	Judgement: Propriety	Behaviour
	NP	v-link	ADJ + prep.	VP
ADJ to-inf.	he	was	right to	drive a hard bargain
	Szasz	is	right to	describe anorexia nervosa as a political problem

In fact, there are some other patterns (e.g. **ADJ for**, **ADJ on**) in which *right* can be used. However, since the meaning of *right* is mainly associated with Judgement: Capacity or Judgement: Propriety, it would not make much sense to list all the patterns in which it

can occur. Suffice it to say, the meaning of a word is closely connected to the pattern it co-occurs with. On the one hand, this supports the argument that the more general a word is, the more useful its patterning features are in distinguishing its senses, as noted in Section 7.4.5.3. On the other hand, this indicates that the automatic parsing of appraisal expressions cannot be based on the specification of word either.

The upshot of the discussion above is that local grammars of evaluation would need to be centred on the *word + pattern* combination, rather than on the pattern or word alone, if our aim is to enable ultimately the automatic identification and parsing of appraisal expressions by using the associated local grammar parser.

(II) *Referent of the subject*

As discussed in Section 8.2.1, there are cases where the exact (sub)type of evaluation realised by an item is dependent on attitudinal target (e.g. items like *famous for*, *notorious for* may realise either Judgement or Appreciation, depending on the referent of the appraised entity). In terms of automatic appraisal analysis, this indicates that the referent of the subject of an evaluative clause has to be specified in local grammars of evaluation.

The argument that the referent of the subject of an evaluative clause needs to be specified can also be supported by the distinction made between *Self Judgement* and *Non-self Judgement*. As discussed in Section 7.4.2, a noun phrase functioning as the grammatical subject in *Non-self Judgement* instances should be parsed as Target, and it should be parsed as Evaluator and Target in *Self Judgement* instances. Some examples are given below (see Table 8.10).

Table 8.10(1): Parsing instance associated with *Self Judgement*

Element	Target	Hinge	Judgement: Capacity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ of	I	was	capable of	independent achievement
ADJ in	I	... became	adept at	striking the first blow
	Evaluator	Hinge	Judgement: Capacity	Scope

Table 8.10(2): Parsing instance associated with *Non-self Judgement*

Element	Target	Hinge	Judgement: Capacity	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ of	he	was	capable of	composing his own songs
ADJ at	Kempe	was	adept at	selecting and training designers

As shown in Table 8.10, instances associated with *Self Judgement* and *Non-self Judgement* need to be parsed differently. Together with the observation that one item can realise either Judgement or Appreciation (see Section 5.3 and Section 8.2.1), depending on the attitudinal target, it can then be asserted that the referent of attitudinal target would also need to be specified in the local grammars of evaluation if we want to perform successfully the automatic analysis of evaluative clauses using the associated parser.

(III) *Referent of the item in the complementation pattern*

It has been noted in Section 8.2.2 that there are cases where the local grammar analysis is dependent on the complements. This has also been shown in Figure 8.6 above: pattern elements following the *adjective + pattern* sequence could be a noun phrase, a verb phrase or an embedded clause, and there are four related meaning elements on to which the pattern element may be mapped. This suggests that the referent of items in the complementation pattern also needs to be specified in the local grammars of evaluation, provided that our aim is to enable the automatic analysis of appraisal expressions with the help of the associated parser.

It is important to specify the referent of items in the complementation patterns, because the items complementing the pattern might need to be parsed differently and also because the exact (sub)type of evaluation realised by the *adjective + pattern* combination may be dependent on the referent of the complements (e.g. whether the complements refer to a thing or a person). *good with* is a very good example to illustrate this point (see Table 8.11 below).

Table 8.11(1): *good with* associated with Capacity

Element Pattern	Target	Hinge	Judgement: Capacity	Scope
	NP	v-link	ADJ + prep.	NP
ADJ with	Fawcett	was	good with	mechanical things

Table 8.11(2): *good with* associated with Propriety

Element Pattern	Target	Hinge	Judgement: Propriety	Patient
	NP	v-link	ADJ + prep.	NP
ADJ with	he	was	very good with	the crew

As shown above, *good with* may either realise Capacity or Propriety, depending on whether the complement indicates a thing or a person (also see Section 8.2.2). Moreover,

the complement needs to be analysed as Scope when it refers to a thing and as Patient when it refers to a person. This shows that the exact (sub)type of evaluation realised by an item may be dependent on the complements, which further suggests that the correct parsing also depends on the specification of the referent of items in the complementation patterns¹⁷.

To summarise, the discussion above suggests that the associated local grammar parser would need to be able to recognise 1) the *word + pattern* combination, 2) the referent of the grammatical subject, and 3) the referent of items in the complementation pattern. Accordingly, if we want to enable the automatic recognition and parsing of appraisal expressions by using the associated parser, the local grammar description needs to specify, most importantly, the *word + pattern* combination, the referent of the attitudinal target and the referent of items complementing the pattern. This suggests that all the elements involved in an evaluative clause have to be recognised by the parser, which further indicates that the automation of appraisal analysis is quite a challenging task. This is true; however, the discussion also suggests that, as long as these aspects can be specified in local grammars of evaluation, it would be possible to perform automatically (and successfully) the analytic task of appraisal analysis with the help of the associated parser (cf. Hunston & Sinclair 2000: 88).

8.4 Replicability of the Methodology

The replicability of the methodology is related to two aspects. The first one is concerned with whether the methodology can be replicated to study other types of attitudinal meanings, i.e. Affect and Appreciation, provided that adjective complementation patterns are taken as the starting point; the second one is concerned with whether the methodology can be applied to study evaluative language if other types of grammar patterns (e.g. verb or noun patterns) were taken as the starting point. I will mainly address the first question here. This is because evaluative meanings are typically realised by adjectives, which means that, ideally, the methods used in the present study could be replicable in the study of Affect and Appreciation. The second issue will only be briefly discussed here (but see Section 9.4.1).

It has been shown in Chapters 5 and 6 that the three types of attitudinal meanings

¹⁷ As for the parsing of the items complementing the pattern, the general observations are described in Section 8.3.2.2 above.

identified in the APPRAISAL model (Martin 2000; Martin & Rose 2003; Martin & White 2005; White 2002, 2011) share the majority of adjective complementation patterns. For the sake of clarity, I reproduced the table which summarises the association between adjective complementation patterns and types of attitudinal meanings (see Table 8.12 below).

Table 8.12: A summary of the association between adjective complementation patterns and ATTITUDE

System Pattern	AFFECT	JUDGEMENT	APPRECIATION
ADJ at	√	√	×
ADJ about	√	√	×
ADJ by	√	×	√
ADJ for	√	√	√
ADJ in	√	√	√
ADJ of	√	√	√
ADJ to n	√	√	√
ADJ towards	√	√	×
ADJ with	√	√	√
ADJ to-inf.	√	√	√
ADJ that	√	√	×

The observation that the majority of adjective complementation patterns can be used to express all three types of attitudinal meanings suggests that it is highly possible to replicate the methodology used to develop the local grammar of Judgement to develop the local grammars of Affect and of Appreciation. For example, instances associated with Affect and Appreciation can be identified by performing queries of these adjective patterns; these instances can then be analysed from a local grammar perspective, which makes it possible to capture the regularities of these instances. This further facilitates the development of the local grammar of Affect and that of Appreciation respectively.

Although Bednarek (2008a) has already developed a local grammar of Affect, it is arguable that a more detailed analysis of adjective complementation patterns can further contribute to the local grammar description of affective meanings. For example, the distinction between realis and irrealis Trigger (i.e. the cause of the emotional response, see Bednarek 2008a: 70) can be made more explicit if the pattern **ADJ to-inf.** is examined more delicately. That is, the *to-inf.* clause often indicates an irrealis trigger (i.e. the emotional reaction is construed towards future actions), as in instances *I am willing to submit to a test* (ANJ 435), *he was reluctant to make any such announcement*

(EFV 1519); however, the *to-inf.* clause may also indicate a realis trigger (i.e. the emotional reaction is construed towards past actions), as in instances *she was surprised to learn that Minton paid him money* (F9U 980), *I was amazed to see children in a Sydney playground lining up in this fashion* (B1Y 47).

The construction of the local grammar of Appreciation is a more urgent task, because it bridges the gap currently existing in the local grammar description of evaluation. Notably, the present study should have to a great extent paved the way to accomplish that task in the sense that it offers some methodological insights into the development of the local grammar of Appreciation. For example, instances associated with Appreciation in corpora can be identified in the same way (i.e. performing queries of grammar patterns) as instances associated with Judgement were identified; some of the functional terms used in the local grammar of Judgement may also be used in the local grammar of Appreciation (e.g. Hinge, Scope). Meanwhile, the fact that Judgement and Appreciation differ from each other in terms of attitudinal target indicates that we will need a different functional term to analyse the entity that is being appreciated; a suggested one for the demonstration is Target-thing, as noted in Section 7.4.5.3.

To recapitulate, functional terms such as Target-thing (the entity under appreciation), Hinge (the link between different elements), Appreciation (appreciating meaning expressed), and Scope (the extent to which the evaluation is valid) can be used temporarily to demonstrate the local grammar of Appreciation. Some examples are given below to show what a (potential) local grammar of Appreciation may look like.

Table 8.13: Parsing instances associated with Appreciation

Element	Target-thing	Hinge	Appreciation	Scope
Pattern	NP	v-link	ADJ + prep.	NP
ADJ for	these things	are not	good for	our life support system
ADJ of	Brown Street	was	almost devoid of	shops
ADJ in	His strength of character	was	invaluable in	dealing with the guards ...
ADJ with	Communism	is not	... compatible with	the novel.
ADJ to n	his work	was	crucial to	to the initial break into ...
ADJ to-inf.	the threat	was	sufficient to	alarm the King's sister Adela

As shown above, it is fair to say that the methods used to develop the local grammar of Judgement can be replicated to develop the local grammar of Appreciation which, in its own right, is also a valuable and useful undertaking.

As for the second issue, i.e. whether the methods used in the current study are replicable if verb patterns and/or noun patterns were taken as the starting point to develop local grammars of evaluation, my speculation is that the methods could be replicable as well. For example, the search process is almost the same, i.e. to perform queries of verb or noun patterns in the corpus, and then manually identify those lexical items which instantiate the pattern and express evaluative meanings. The next step is to analyse instances in which these items occur from a local grammar perspective. The concern, however, is that evaluative meanings might not be expressed by verb and noun patterns as frequently as being expressed by adjective ones. Nevertheless, ‘infrequent’ does not necessarily mean ‘insignificant’, thus, the necessity of studying evaluative language with verb and/or noun patterns as the starting point can by no means be denigrated (cf. Felices-Lago & Cortés-de-los-Ríos 2014: 117).

8.5 Summary

This chapter has revisited the local grammar of Judgement. It first presented a discussion of local grammar analysis of some special cases (i.e. cases where the analysis is dependent on 1) the attitudinal target, 2) the complements, and 3) the social-cultural or situational context), which contributes to a relatively more comprehensive local grammar description of Judgement instances. The significance of local grammars of evaluation was discussed subsequently. It has been argued that local grammar is of theoretical significance in that it may provide an alternative way to model attitudinal meanings, which is exemplified by devising an alternative framework of Judgement based on the local grammar analysis. It has been further argued that local grammar is of practical significance in that it informs us what needs to be captured by the grammar if our ultimate aim is to enable the automation of appraisal analysis with the help of the associated local grammar parser. To be specific, it has been shown that local grammars of evaluation would need to be centred on the *word + pattern* combination, and that local grammars of evaluation would need to specify the referent of the grammatical subject in evaluative clauses and the referent of items complementing the patterns. Additionally, I have explored the replicability of the methodology used in the present study, which demonstrates that the methods used to develop the local grammar of Judgement can be replicated to develop local grammars of other types of Attitude, in particular, to develop the local grammar of Appreciation.

CHAPTER 9 CONCLUSION

In this concluding chapter, I will first discuss some general issues concerning corpus approaches to appraisal research (Section 9.1), and then summarise the main observations and arguments (Section 9.2). This is followed by a discussion of the implications and applications of the present study (Section 9.3). Areas worthy of future investigation will then be suggested (Section 9.4). Lastly, some final remarks will be made in Section 9.5 to conclude the thesis.

9.1 Corpus Linguistics and Appraisal Research

This section discusses some issues arising from the current investigation. The discussion includes: 1) how instances of evaluation can be (and have been) captured by corpus linguistic methods, 2) what roles corpus investigation techniques can play in appraisal research, and 3) what insights corpus investigation can offer into the modelling of attitudinal meanings.

One challenge of using corpus linguistic methods to investigate evaluative language is how to identify instances associated with evaluation, and what proportion of the total amount of evaluation can thereby be identified. Previous studies have demonstrated that corpus linguistic methods can be used to identify expressions associated with evaluation (e.g. Hunston & Sinclair 2000; Hunston 2004b, 2007b, 2011, 2014; Römer 2008; Bednarek 2014). In general, the methods used in previous studies are more or less related to phraseology. Following these studies, the method used in the present study to identify evaluative instances is similar, i.e. first to perform queries of one particular type of phraseology – the adjective complementation patterns in the CoB, and then to examine manually all the hits returned. Despite occasional tagging errors and the exclusion of lexical items occurring only once, it is possible to be reasonably confident that the present study has captured almost all of those instances of adjective complementation patterns associated with evaluation.

For the purpose of illustration, an excerpt of a text from the CoB is analysed below. The excerpt is a report compiled by a counsellor at the end of a summer camp that Leonard Cohen participated in age 14. Expressions which are evaluative and which can be identified by searching adjective complementation patterns are marked in both bold face and italics; expressions which are evaluative but cannot be identified by searching adjective complementation patterns are marked in bold face only.

HEALTH: Lenny's health has been **excellent** all summer.

PERSONAL AND HYGIENE HABITS: **He is neat and clean.** He is *careful about* his clothes and always appears **well dressed**.

PERSONALITY: Leonard is **cheerful, intelligent, and pleasant to** everyone. He has a **fine sense of humour**, and he shows **strong leadership qualities**.

REACTION TO CAMP ROUTINE AND RESPONSIBILITIES: Lenny **can be trusted** to carry to completion any task given to him. He **follows the camp routines well**, but at times he becomes **disinterested and a little slow in carrying them out**.

RELATIONSHIP TO OTHER CAMPERS: **Lenny is the leader of the cabin** and is **looked up to** by all members of the cabin. He is the **most popular** boy in the unit and is **friendly with** everyone.

RELATIONSHIP TO CAMP STAFF: He is **well liked** by the entire staff and they **enjoy** his company just as he does theirs.

INTERESTS AND ABILITIES: Leonard **is particularly interested in sailing** and is **one of the best** skippers in the unit. He **participates enthusiastically in** all the activities and is **good in** all of them.

GENERAL BEHAVIOUR: He is an **excellent** camper. Lenny **responds quickly** to requests made of him both by campers and counsellors alike.

REMARKS AND RECOMMENDATIONS: Lenny has had an **excellent** summer. He has had ample opportunity to exercise leadership, which he almost invariably directs along positive channels, and **has improved** in the various skills.

As shown above, approximately one fourth of those evaluative expressions can be identified by searching adjective complementation patterns, which indicates that a considerable number of evaluative instances can indeed be captured by searching adjective complementation patterns.

At the same time, however, this also shows that there is an even larger number of instances which have not been accounted for; for example, instances where the evaluative adjective does not occur in complementation patterns (e.g. *he is neat and clean*), those where evaluation is expressed by verbs or nouns (e.g. *enjoy*; *leader*), and, more notably, those where there is no explicit evaluative lexis (e.g. *Lenny ... is looked up to by all members of the cabin*). This brings in one major drawback and/or criticism of using corpus methods to investigate evaluative language, that is, the restriction of form-identification cannot capture those instances which do not have explicit evaluative lexis but do have an evaluative role. This is because “the group of lexical items that indicate evaluative meaning is large and open” (Hunston 2004b: 157), and “it is not yet clear how many lexical items and syntactic structures express evaluative meanings” (Stubbs 2001: 216). Hence, focusing only on evaluative lexis may not be able to account for all attitudinal resources. Further, this is also because “evaluation is often seen as heavily context-dependent; in consequence, many expressions may appear irrelevant to evaluation on their own, while assuming evaluative roles in particular contexts”

(Mauranen 2004: 205). Since corpora have normally excluded such contextual information, the criticism thus has been made that corpus investigation techniques are unlikely to be able to identify exhaustively evaluative expressions in open-running texts.

With regard to the present study, the fact that it has not captured all instances associated with evaluation would not pose many problems for the observation drawn about the association between adjective complementation patterns and attitudinal meanings (see Chapters 5 and 6), as the current study has explicitly stated that this particular type of grammar pattern was taken as a starting point for that task. However, the restriction of grammar patterns to adjective complementation patterns raises serious concern for the local grammar of Judgement developed in the current study (see Chapters 7 and 8), because this restriction indicates the incomplete description of judgement instances (let alone a large number of instances of invoked Judgement); and consequently, the local grammar of Judgement developed is incomplete. In other words, the present study has not fully developed the local grammar of Judgement. This requires a more comprehensive analysis of judgement instances, including analysing as much invoked evaluation as possible, which would contribute essentially to the local grammar of Judgement.

The second issue worth discussing relates to the roles of corpus linguistic methods in appraisal research. As noted in Section 1.1, Hunston (2011) has summarised the roles that corpus techniques play in the investigation of evaluative language. To repeat:

- They allow a researcher to establish that a given word or phrase has a typical evaluative use or polarity.
- They permit quantification of evaluative meaning in one set of texts over another, by counting the occurrences of given forms.
- They permit mapping of meaning elements on to form elements where these coincide consistently.
- They allow a researcher to observe consistency in co-text in meaning as well as in form.

(Hunston 2011: 166-167)

While supporting Hunston's observations, the present study suggests one more role of corpus investigation techniques in appraisal research, or more generally, in language and discourse studies, which is basic yet has not been made clear; that is,

- They enable the researcher to investigate and consider more data, which further provides more empirical evidence to support, challenge or refine existing theoretical frameworks.

For example, the current investigation of adjective-in-pattern exemplars shows that there are a considerable number of lexical items which are associated with, but have not been accounted for in terms of, Judgement. This indicates the necessity to refine the original JUDGEMENT system accordingly so as to enable it to deal effectively with Judgement resources. A refined JUDGEMENT system is thus proposed, which, on the one hand, should have contributed to a more delicate and fine-grained framework for analysing evaluative language. On the other hand, this should have exemplified that corpus investigation techniques enable the researcher to consider more data, which further gives the researcher the chance to challenge or refine existing linguistic theories, and even the chance to propose new categories that have not been previously recognised (cf. Lavid *et al* 2014: 73).

Finally, it is worthwhile to consider the relation between corpus investigation and the modelling of evaluative meanings (also see Section 9.2.1). The question as to how attitudinal meanings can be modelled is one of those outlined in Hunston (2014) that studies of evaluative language should seek to answer. While Hunston (2011: 166-167) has systematically discussed the main roles of corpus investigation techniques in the studies of evaluative language, I would like to further discuss what insights corpus investigation can offer into the modelling of evaluation, paying particular attention to the APPRAISAL model. Based on the current study, I would argue that corpus investigation can:

- provide empirical evidence to support, challenge or refine existing linguistic theories of evaluation (e.g. the refined JUDGEMENT system);
- specify the attitudinal potential of a given lexical item, which further suggests that illustrative examples for each appraisal (sub)category should be given in the form of *word + pattern* combination (e.g. *good at, good with*);
- yield new insights into the description and theorising of appraisal (e.g. Appraisal as simultaneous choice);
- offer an alternative way to assess the validity of the distinctions drawn between types of Attitude (e.g. local grammar analysis).

9.2 Pattern Grammar, Local Grammar and Appraisal Research

This section discusses the relationship between grammar patterns, local grammar and the study of evaluative language. In general, the present study, paying particular attention to adjective complementation patterns and Judgement, has explored further the association between grammar patterns and attitudinal meanings, which shows that it is feasible and worthwhile to incorporate pattern grammar into appraisal research. It has been shown, for example, 1) that the examination of word-in-pattern exemplars offers empirical evidence for refining the original JUDGEMENT system, 2) that grammar patterns are of some use in distinguishing types of attitudinal meanings and grammar patterns are a very useful heuristic to investigate attitudinal resources, and 3) that grammar patterns are a good starting point for developing local grammars of evaluation. These aspects are discussed in turn.

9.2.1 Grammar patterns and the modelling of attitudinal resources

This study has demonstrated that the analysis of word-in-pattern exemplars is useful for refining existing frameworks of evaluation (also see Section 9.1). For example, this study has proposed an adaptation of the original JUDGEMENT system based on the examination of adjective-in-pattern exemplars (e.g. *complacent in*, *confident in*) in the CoB. To be specific, the examination shows that the evaluation of emotional types of personality traits is frequently represented in naturally occurring language, which indicates that this is a significant attribute for appraisal. Since it is the JUDGEMENT system in APPRAISAL that deals with the evaluation of human character, it can be reasonably argued that this attribute has to be accounted for in terms of Judgement. Surprisingly, however, this attribute has been generally overlooked when Martin and his colleagues model Judgement. This study thus suggests that the original framework of JUDGEMENT should be refined so as to enable it to deal effectively with Judgement resources. Emotivity, which refers to attitudes construed towards emotional types of personality, is tentatively proposed as a new sub-type of Judgement.

Meanwhile, it has been explained that listing words in isolation is not an ideal way to present the illustrative examples for semantic categories of evaluation, because a word in isolation only has meaning potential and the meaning of a word is dependent on the patterns it co-occurs with. Bringing together the argument that both the distinctions between the judgement of social esteem and that of social sanction and

between the evaluation of behaviour and the evaluation of character should be considered when organising the framework of Judgement, a typological representation of the modified JUDGEMENT system is proposed (see Table 9.1 below). It has been further argued that the refined JUDGEMENT system is explanatorily more powerful in describing Judgement resources.

Table 9.1: The refined JUDGEMENT system

	Evaluation of behaviour	Evaluation of character
Social esteem	Normality: uniqueness e.g. <i>luck to-inf., famous for, notable for, familiar with, famed for, etc.</i>	Tenacity: dependability e.g. <i>careful to-inf., brave about, loyal to, wary about, supportive of, adaptable to, etc.</i>
	Capacity: ability e.g. <i>good at, adept at, capable of, brilliant about, clueless about, etc.</i>	Emotivity: emotional types of personality e.g. <i>confident of, complacent in, shy about, jealous of, patient about, etc.</i>
Social sanction	Propriety: appropriateness e.g. <i>good to, generous of, rude to, short on, guilty of, polite to, etc.</i>	Veracity: truthfulness e.g. <i>frank about, true to, honest about, cunning in, blunt in, etc.</i>

Overall, this study has amassed some evidence to show that grammar patterns are useful in the investigation of attitudinal resources. It is believed that a detailed examination of word-in-pattern exemplars in corpora can provide more empirical evidence that can supplement or confirm our intuition of evaluative language, which could further contribute to testing or refining existing theoretical frameworks of evaluation.

9.2.2 Grammar patterns as a diagnostic and as a heuristic

Previous studies have assumed that grammatical frames or grammar patterns might be used as a diagnostic to distinguish (sub)types of Attitude (e.g. Martin 2003; Martin & White 2005). Since previous investigation into the validity of this assumption has paid little attention to adjective complementation patterns, the current study thus, taking this under-explored type of grammar patterns as a starting point, has further explored the possibility of using grammar patterns to differentiate Affect, Judgement and Appreciation. The exploration shows that adjective complementation patterns might be of some use in distinguishing types of attitudinal meanings (cf. Bednarek 2009a;

Hunston 2011: 130-138). For example, the analysis shows that some adjective complementation patterns (e.g. **ADJ at**, **ADJ about**) can only co-occur with one type of opinion lexis, i.e. either with Judgement or Appreciation, which indicates that grammar patterns could be of some use in differentiating Judgement lexis from Appreciation ones. Nevertheless, it has to be noted that it would not be easily possible to use grammar patterns to distinguish automatically types of attitudinal lexis (i.e. affective, judgement and appreciating lexis), because the majority of grammar patterns can be used with at least two types of attitudinal lexis, as shown in both previous studies and the current investigation.

Furthermore, this study has explored the possibility of using adjective complementation patterns to assess the validity of the distinctions made between the subcategories of Judgement. The analysis again shows that grammar patterns are only of limited use in diagnosing the subcategorisation of Attitude systems, though the analysis does suggest that Capacity is certainly one factor based on which a judgement can be made.

At the same time, this study has demonstrated that grammar patterns are a useful heuristic in the investigation of evaluative language. Taking adjective complementation patterns as a heuristic, the analysis of adjective-in-pattern exemplars reveals some aspects which have yet not been adequately discussed. To be specific, it has been observed that attitudinal target, i.e. the entity that is being evaluated, is an equally important criterion as attitudinal lexis for the classification of attitudinal resources. This further suggests that appraisal would better be interpreted as simultaneous choice made in terms of both attitudinal target (i.e. human beings or things) and attitudinal lexis (i.e. emotion and opinion lexis). In addition, the analysis of some particular instances shows that invoked evaluation might also be dependent on attitudinal target (e.g. *your secret is safe with me* (JOW 332)), which further suggests an extension of the notion of invoked evaluation.

Summing up, this study has presented a detailed scrutiny of all instances of adjective complementation patterns in the light of appraisal, which provides a more comprehensive overview of the linkage between these patterns and attitudinal meanings. To recapitulate, the investigation indicates, on the one hand, that it may not be feasible to use grammar patterns or other grammatical constructions as tests to identify or distinguish automatically types of attitudinal lexis, and on the other hand, that grammar

patterns are a very useful heuristic to investigate evaluative language (see also Hunston 2011: 130-138).

9.2.3 Grammar patterns and local grammars of evaluation

It has been demonstrated that grammar patterns are a good starting point for the development of local grammars of evaluation, which offers some methodological insights into future investigation of evaluative language from a local grammar perspective. Most notably, grammar patterns are helpful in identifying units of meaning, which is crucial for the establishment of local grammars. As shown in the present study, the queries of adjective complementation patterns in the CoB help to identify items associated with Judgement, which further facilitates the identification of Judgement instances. The identification of Judgement instances allows the researcher to observe and describe systematically and coherently the regularities of these instances. It is this systematic and coherent description that contributes significantly to the development of local grammars of evaluation, as exemplified by the local grammar of Judgement developed in the present study.

As noted earlier, local grammars involve the mapping of meaning elements on to pattern elements. What makes it difficult to develop local grammars, however, is that there is no one-to-one correspondence between patterns and meanings, as shown in chapters 7 and 8. Let us take the pattern **ADJ at** as an example. The corpus analysis in Chapter 5 shows that this pattern can occur with both affective (e.g. *pleased at*, *surprised at*) and judgement lexis (e.g. *good at*, *adept at*). In terms of local grammar analysis, instances containing affective lexis and those containing judgement lexis should be analysed differently, because local grammars analyse each element in terms that are directly related to its discourse function (Hunston 2011: 142). That is, instances associated with Affect are better analysed using functional labels such as Emoter, Emotion and Trigger, e.g. *She* [Emoter] / *was pleased at* [Emotion] / *the distinction* [Trigger] (CA6 7165) (see Bednarek 2008a for more exemplification), whereas instances associated with Judgement are better analysed using functional labels such as Target, Judgement and Scope, as in *He* [Target] / *also became adept at* [Judgement] / *exploiting a variety of popular discontents* [Scope] (GT2 905) (see Chapter 7 and Section 8.3.2.3 for more exemplification). This indicates that “pattern alone does not reliably identify functional roles. Rather, it is the word and the pattern together does that” (Hunston 2011: 150). This further suggests that local grammar analysis is heavily

dependent on the specification of both the word and the pattern, which makes it a challenging task to develop local grammars of evaluation.

Based on the discussion above, the observation that we can draw about the relationship between pattern grammar and local grammar is stated as follows: while grammar patterns are indeed a good starting point for developing local grammars, local grammars would need to be centred on word-pattern combination, rather than on patterns only.

9.3 Implications and Applications of This Research

In general, this study 1) has refined the original JUDGEMENT system, 2) has explored in depth the association between adjective complementation patterns and Attitude, Judgement in particular, and 3) has developed a local grammar of Judgement. Each of them has some implications and applications, which are discussed in greater detail below.

9.3.1 The refined JUDGEMENT system and ATTITUDE

This study has proposed a modified JUDGEMENT system. The modifications include the following aspects. Firstly and most notably, drawing on evidence and findings from both personality psychology and corpus analysis, this study introduced a new sub-type of Judgement, i.e. Emotivity. Secondly, it has been argued that, apart from the distinction between judgement of social esteem and judgement of social sanction, the distinction between the evaluation of behaviour and the evaluation of character should also be considered when organising the JUDGEMENT system. Following this argument, it has been suggested that Normality, Capacity and Propriety are primarily concerned with the evaluation of behaviour, and Tenacity, Veracity and Emotivity with the evaluation of character. Lastly, based on the observation that patterns and meanings are associated, it has been pointed out that lexical items, other than words in isolation, should be given as illustrative examples for each meaning category. Overall, it has been demonstrated that these modifications make the JUDGEMENT system more robust and powerful in classifying Judgement lexis.

In addition, a topological description of attitudinal resources with respect to the refined JUDGEMENT system was presented. While previous studies have discussed the border areas between AFFECT and APPRECIATION (e.g. Affect and Reaction) and between APPRECIATION and JUDGEMENT (e.g. Valuation and Normality), the

border area between AFFECT and JUDGEMENT has to date not been fully explored. This study has shown that the newly established meaning category, i.e. Emotivity, can bridge the gap between AFFECT and JUDGEMENT, because Judgement: Emotivity shares similarities with Affect (e.g. they both are more or less related to the construal of emotional states). This suggests that the modified version of JUDGEMENT contributes to a more complete and coherent description and characterisation of attitudinal resources, which, ideally, can further facilitate the practice of appraisal analysis.

9.3.2 Pattern and meaning, lexis and grammar

This study has presented a detailed exploration of the linkage between adjective complementation patterns and attitudinal meanings, which, apart from showing that grammar patterns are only of limited use in making distinctions between (sub)types of attitudinal meanings and that grammar patterns are a useful heuristic to investigate attitudinal resources, provides some new insights into the general issue concerning the association between patterns and meanings. To be specific, it has been observed that patterns might have a preference in terms of the realisation of particular (sub)types of attitudinal meanings. For example, patterns **ADJ by** and **ADJ that** are typically used to express Affect whereas patterns such as **ADJ for** and **ADJ to n** are more frequently used to express the evaluation of things; some patterns (e.g. **ADJ at**, **ADJ about**) can only be used to express evaluative meanings associated with human beings, i.e. either the construal of emotion or the construal of ethical evaluation; and the pattern **ADJ at** is typically used to express Capacity when it is associated with Judgement. Similarly, it has been noticed that some meanings are more likely to be expressed by adjective complementation patterns than others. For example, in terms of the number of lexical items that is associated with one particular (sub)type of Attitude, it has been found that Affect and the two sub-types of Judgement, i.e. Capacity and Propriety, are most likely to be expressed by adjective complementation patterns. Further, it has been argued that patterns might be useful in distinguishing meaning elements; for example, Reason is realised by complements following the preposition *for*, and Behaviour by complements consisting of a *to*-infinitive clause. Finally, it has been noted that patterns can function as a meaning limiter or specifier (i.e. the meanings of one particular item become specific when it co-occurs with particular patterns) and that patterns may even alter the (sub)type of attitudinal meanings one item can express (e.g. *guilty* in **ADJ with** realises

Judgement whereas *guilty* in **ADJ about** realises Affect; *good* in **ADJ at** typically realises Judgement: Capacity whereas *good* in **ADJ to n** typically realises Judgement: Propriety).

The observation that patterns and meanings are associated supports the argument that sense and syntax are interdependent, which further indicates that lexis and grammar are inseparable (e.g. Sinclair 1991, 2004; Hunston & Francis 2000; Halliday 2008: 21-76; Römer 2009; Römer & Schulze 2009). Since lexis and grammar are traditionally described as separate phenomena, the evidence of the interdependence of lexis and grammar amassed in previous studies and the current investigation would require a radical description of language and language use. Although the inseparability of lexis and grammar has now been widely recognised in the linguistic community, it is desirable that we keep paying attention to the interdependence of lexis and grammar in language description and in modelling linguistic theories.

9.3.3 Local grammar and appraisal analysis

This study has partly developed a local grammar of Judgement which is of both theoretical and practical significance. It has been argued that local grammars of evaluation can be of theoretical significance in the sense that they may provide an alternative way to model the framework of attitudinal meanings. This argument is based on the observation that, from a local grammar perspective, Attitude can be represented as semantic configurations enacted by instances associated with that particular type of attitudinal meaning. The role of local grammar description in modelling attitudinal meanings is exemplified subsequently with the alternative system network of Judgement proposed in the current study (see Section 8.3.1).

It has been further argued that local grammars of evaluation may be of practical significance in that it informs us what need to be captured in the grammatical descriptions if our ultimate aim is to perform appraisal analysis automatically using the associated local grammar parser. To be specific, the analysis shows that local grammars of evaluation would need to be centred on the *word + pattern* combination, rather than patterns or words alone. At the same time, the specific parsing might also be dependent on the referent of the attitudinal target and the referent of the elements in the complementation patterns, which suggests that local grammars of evaluation would need to specify the complete semantic configuration enacted by complementation patterns.

The automation of appraisal analysis could have a number of potential applications. For example, it could be used to assist Sentiment Analysis. As mentioned earlier, local grammars of evaluation might have the potential to enable ultimately the automatic recognition and analysis of evaluative language in open-running texts. Since the automatic identification and classification of evaluative expressions is one of the main tasks of Sentiment Analysis (see Liu 2010), it can thus be argued that local grammars of evaluation could be used to facilitate Sentiment Analysis (cf. Bloom 2011).

Moreover, local grammar analysis may also be helpful for characterising different types of narratives, or even more broadly, for characterising text types. It has been argued in Section 7.4.2 that it is important to make a distinction between *Self Judgement* and *Non-self Judgement*, because instances associated with them need to be analysed differently from a local grammar perspective. This distinction may enable appraisal analysis to characterise text types. For example, it could be speculated that first person narratives may be characterised by its predominant use of *Self Judgement* (or authorial evaluation) whereas third person narratives by *Non-self Judgement* (or non-authorial evaluation). This speculation may be either supported or challenged with a local grammar analysis of evaluative clauses in different types of narratives. It is in this respect that it can be said that local grammar analysis might be helpful for the characterisation of text types, which further enlarges the applicability of appraisal analysis.

9.4 Suggestions for Future Studies

9.4.1 Noun patterns and verb patterns

Although evaluative meanings are typified by adjectives, they can also be realised by nouns, verbs (and many other linguistic and non-linguistic resources). Since the present study has only considered adjective complementation patterns, it is necessary to further explore the association between noun and verb patterns and Judgement (and also other types of Attitude) and to take into account these patterns when developing local grammars. For example, Judgement: Capacity can be realised either by the verb *succeed*, or the noun *success* or the adjective *successful*. While it is observed that most of the instances in which *succeed* and *success* occur can be described in a similar way as *successful*, exceptions are also found; for example,

- 9.1 Wilson's *success as* a collector led to his being invited by C. S. Sargent. (GTH 1335)
 9.2 ... and the result was a resounding *success for* the Prince president. (ANR 205)
 9.3 his *success with* this important commission establishing his local reputation. (GSX 849)
 9.4 The music publishing company was also showing a healthy profit, particularly with the coming *success of* a young Newcastle songwriter. (FNX 520)

In terms of local grammar analysis, these instances would need to be analysed differently. In example 9.1, for instance, the local grammar of Judgement would need a new functional category to analyse the noun phrase *a collector*. Since pattern elements have to be analysed in terms that are directly related to their discourse function, the term 'Role' is tentatively proposed to label *a collector* so as to keep in line with its function. The analysis is shown in Table 9.2 below.

Table 9.2: Parsing *N as*

Element	Target	Judgement	Role
Pattern	NP	NOUN + prep.	ADJ + prep.
<i>N as</i>	Wilson's	success as	a collector

The other three instances can be analysed using the terms proposed in the present study, but as different semantic configurations, as shown in Table 9.3 and 9.4 below.

Table 9.3: Parsing *N with*

Element	Target	Judgement	Scope
Pattern	NP	NOUN + prep.	ADJ + prep.
<i>N with</i>	his	success with	this important commission

Table 9.4: Parsing *N for* and *N of*

Element	Judgement	Target
Pattern	NOUN + prep.	NP
<i>N for</i>	a resounding success for	the Prince president
<i>N of</i>	the coming success of	a young Newcastle songwriter

It becomes clear now that instances of noun and verb patterns need to be analysed so that a more complete description of Judgement can be obtained. Moreover, it is worth noting that this is not only true for Judgement, but also for other types of Attitude (i.e. Affect and Appreciation). The upshot of the discussion, then, is that it is important to further explore the association between noun and verb patterns and Attitude, and that it is necessary to take into consideration the noun patterns, verb patterns and adjective patterns when developing local grammars of evaluation (e.g. Bednarek 2008a).

9.4.2 A local grammar of appreciation

It is expected to see more investigation into evaluative language from a local grammar perspective in the future. One worthwhile and probably urgent undertaking is to develop a local grammar of Appreciation. As proposed by Martin and his colleagues, ATTITUDE is divided into three semantic areas, i.e. AFFECT, JUDGEMENT and APPRECIATION. Since Bednarek (2008a) has successfully developed a local grammar of Affect and the current study has to some extent developed a local grammar of Judgement, the area left unexplored is the local grammar of Appreciation. In this sense, it is desirable that a local grammar of Appreciation could be developed in the future. It is believed that the local grammar of Appreciation, together with the local grammar of Affect and the local grammar of Judgement, could contribute to a more systematic and coherent description and characterisation of attitudinal meanings. More importantly, the establishment of these local grammars of evaluation may contribute substantially to the development of the associated parser which might have the potential to perform automatically the analytic task of appraisal analysis.

9.4.3 Local grammar and the parser

Following the above discussion, it can be said that another important area of future research is to explore how local grammars can be employed to develop the associated parser. Although it has been argued that local grammar description could be helpful for developing the corresponding parser, this study has not demonstrated how to do so (cf. Barnbrook & Sinclair 1995, 2001; Barnbrook 1995, 2002; Bloom 2011). Provided that the usefulness of local grammars in assisting automatic appraisal analysis largely depends on the associated parser, future studies are thus expected to explore the feasibility of using local grammar description to develop the associated parser and the possibility of using the associated parser to enable the automation of appraisal analysis. This may be considered as the ultimate goal of studying evaluative language from a local grammar perspective.

9.4.4 Assessing the validity of the appraisal taxonomy of ATTITUDE

As noted earlier, local grammars typically work with transparent functional categories that are characteristic of one particular semantic domain; this raises the possibility of employing a local grammar analysis to assess the validity of Martin and his colleagues'

trichotomy of ATTITUDE. The assumption is that the distinctions made in Appraisal can be said to be valid if and only if: 1) instances associated with different types of evaluation indeed have to be analysed differently from a local grammar perspective, and 2) these instances fit neatly into Martin and his colleagues' classification of attitudinal meanings. Given that their mapping of Attitude is considered as a hypothesis and no scientific and effective way is currently available to test this hypothesis, it is certainly worthwhile to try to assess the validity of the three-way classification of ATTITUDE using a local grammar analysis.

9.5 Conclusion

I would argue that, through its investigation of appraisal from a corpus linguistic perspective, the present study has further exemplified the feasibility and the usefulness of synergising Corpus Linguistics and Systemic Functional Linguistics in language and discourse studies (see also, for example, Butler 2004; Thompson & Hunston 2006; Bednarek 2008a, 2010; Hunston 2011, 2013c; Flowerdew & Forest 2015). The robustness of corpus investigation techniques helps the researcher to deal relatively more easily with the linguistic data, and the explanatory power of SFL enables the researcher to account more adequately for language use in real contexts. Accordingly, it can be argued that the combination of CL and SFL can greatly facilitate and further our investigation and understanding of language and language use.

However, while there have been some studies which have attempted to explore how CL and SFL can be combined in language and discourse studies, it should be noted that the enterprise of developing an integrated research paradigm for linguistic description and explanation which is corpus-based and SFL-informed is still at its very beginning. It is thus desirable to continue and to ultimately complete this enterprise. I would personally take this as the focus of my future research.

To mark the end of the current investigation and the beginning of my future exploration I would like to use a quote from T. S. Eliot's *Little Gidding*:

*We shall not cease from exploration,
and the end of all our exploring
will be to arrive where we started
and know the place for the first time.*

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APPENDICES

Appendix 1: Analysing adjective patterns in terms of Attitude

A: Adjectives followed by a clause

Pattern	Type of lexis	Example
ADJ <i>that</i>	Judgement	They were <i>lucky that</i> we scored when we did
	Appreciation	
	Affect	He was <i>annoyed that</i> no meal was available
ADJ <i>wh</i>	Judgement	
	Appreciation	
	Affect	they are <i>afraid what</i> their neighbours and children will think
ADJ <i>to-inf.</i>	Judgement	We would be <i>foolish to</i> ignore them
	Appreciation	Horses are <i>pretty to</i> look at
	Affect	I'm <i>pleased to</i> say that we're running on schedule
ADJ <i>-ing</i>	Judgement	I was <i>daft going</i> into management
	Appreciation	
	Affect	I felt <i>guilty having</i> eight hours' sleep

B: Adjectives followed by a prepositional phrase

Pattern	Types of lexis	Example
ADJ <i>about n</i>	Judgement	She is highly <i>intelligent about</i> the industry she has made her own
	Appreciation	
	Affect	he was not <i>happy about</i> people having to move
ADJ <i>against n</i>	Judgement	He appears <i>powerless against</i> the corrupt politicians
	Appreciation	Cream is also <i>helpful against</i> a dry flaky skin
	Affect	
ADJ <i>as</i>	Judgement	He's proved absolutely <i>ideal as</i> the captain
	Appreciation	These are quite <i>popular as</i> indoor plants
	Affect	
ADJ <i>as to wh</i>	Judgement	They are <i>ignorant as to</i> how the stock market operates
	Appreciation	
	Affect	She was <i>puzzled as to</i> what motivated him
ADJ <i>at</i>	Judgement	She's <i>excellent at</i> getting people to do things
	Appreciation	
	Affect	He was really <i>mad at</i> me
ADJ <i>between pl-n</i>	Judgement	
	Appreciation	Thus writing is ambiguous, <i>intermediate between</i> good and evil, poison and cure
	Affect	Her husband-to-be was for some time <i>undecided between</i> the state of matrimony and a vacation to the priesthood
ADJ <i>by</i>	Judgement	
	Appreciation	Her designs are <i>recognisable by</i> her use of fascinating shapes
	Affect	Evan was <i>bemused by</i> his fans' reactions

ADJ for	Judgement	He is <i>renowned for</i> having a hot temper
	Appreciation	A tall storage is <i>perfect for</i> hiding ironing boards
	Affect	I'm <i>happy for</i> him
ADJ from	Judgement	She was <i>unrecognisable from</i> the girl she had been earlier
	Appreciation	The central sink unit is easily <i>accessible from</i> all sides of the room
	Affect	She felt <i>tired from</i> the unexpected strain of this afternoon (JY6 1502)
ADJ in	Judgement	Mr Gates has been hugely <i>successful in</i> creating a world-beating business
	Appreciation	I understand celery seed extracts are <i>helpful in</i> the treatment of arthritis
	Affect	He was utterly <i>absorbed in</i> his private game
ADJ of	Judgement	she was <i>capable of</i> winning the gold medal in tennis
	Appreciation	their sentences are <i>devoid of</i> meaning
	Affect	We are <i>proud of</i> our achievements
ADJ on	Judgement	Malcolm may have been <i>weak on</i> theory
	Appreciation	Tea-tree oil is <i>gentle on</i> the skin
	Affect	They were both <i>keen on</i> the idea of education
ADJ over	Judgement	Max was recently <i>victorious over</i> ex-Soviet chess master Yuri Shulman
	Appreciation	In all cultures some jobs are <i>privileged over</i> others Labour is vulnerable over tax
	Affect	Mr Moon was <i>furious over</i> his arrest
ADJ to n	Judgement	He was completely <i>horrible to</i> me
	Appreciation	this matter is financially <i>important to</i> the future of the racing industry
	Affect	Shakespeare was not <i>averse to</i> borrowing from ancient and, even, contemporary authors
ADJ towards	Judgement	He was ... <i>aggressive towards</i> other boys
	Appreciation	
	Affect	I've always felt <i>affectionate towards</i> Karen
ADJ with	Judgement	He was not very <i>expert with</i> a mop
	Appreciation	The air was <i>fragrant with</i> the smell of orange blossoms
	Affect	she was <i>happy with</i> her achievements

C: Adjective patterns with an introductory 'it'

Pattern	Types of lexis	Example
it v-link ADJ that	Judgement	<i>it was silly that</i> both of them should do it
	Appreciation	<i>Isn't it marvellous that</i> these buildings have survived
	Affect	<i>it is frustrating</i> so many films centre their story around sex, or rely on it as a means to tell the story
it v-link ADJ for n that	Judgement	<i>It was fortunate for George that</i> the cinema manager could watch that George had been in the cinema all evening
	Appreciation	<i>It is vital for peace that</i> the Soviet Union act as another super-power
	Affect	
it v-link ADJ of n that	Judgement	<i>It was typical of Livy that</i> she had telephoned
	Appreciation	

	Affect	
<i>it v-link ADJ to n that</i>	Judgement	<i>It seemed only fair to me that</i> she should have the money
	Appreciation	<i>It is important to us that</i> most of our friends are actors
	Affect	<i>it was very disappointing to me that</i> Lisa felt this way
<i>it v n ADJ that</i>	Judgement	
	Appreciation	
	Affect	<i>It makes me sad that</i> they don't get the chance
<i>it v n as ADJ that</i>	Judgement	<i>It never struck me as odd that</i> a man should express emotion
	Appreciation	
	Affect	
<i>it v-link ADJ wh</i>	Judgement	<i>it's understandable why</i> they hate the sight of him
	Appreciation	<i>it's immaterial what</i> he thinks
	Affect	<i>it's doubtful whether</i> I'd recognise him again
<i>it v-link ADJ what/how</i>	Judgement	<i>I think it's fantastic what they're doing</i>
	Appreciation	<i>It's funny how</i> things work out
	Affect	<i>it's disgusting what</i> they've done
<i>it v-link ADJ when/if</i>	Judgement	<i>Would it look rude if</i> she took out a book?
	Appreciation	I think <i>it would be disastrous if</i> the divisional championship was scrapped
	Affect	<i>It's frustrating when</i> people try to do things and are held up with red tape
<i>it v-link ADJ to-inf.</i>	Judgement	I thought <i>it would be selfish to</i> marry if I were going to be killed
	Appreciation	<i>It is essential to pay</i> in advance
	Affect	<i>It was annoying to</i> have people clicking their fingers at you to get your attention
<i>it v-link ADJ for n to-inf</i>	Judgement	I think <i>it is wrong for anybody to say</i> "you will teach in this way"
	Appreciation	<i>It is essential for there to be</i> established codes of practice
	Affect	<i>It was disappointing for Toby not to</i> see a tractor
<i>it v-link ADJ of n to-inf</i>	Judgement	<i>It was lovely of them to</i> help me
	Appreciation	
	Affect	
<i>it v n ADJ to-inf</i>	Judgement	
	Appreciation	
	Affect	<i>It makes me sad to see</i> all the good work we have done devalued in this way
<i>it v-link ADJ ing</i>	Judgement	<i>It was ridiculous putting</i> him behind bars
	Appreciation	<i>It is worthwhile looking out</i> for special deals and discounts
	Affect	<i>It is terrifying being</i> a soldier
<i>v it ADJ that</i>	Judgement	He <i>thought it ridiculous that</i> anyone should care about animals so much
	Appreciation	We <i>thought it important that</i> Phil continue to write
	Affect	I <i>find it amazing that</i> he can be so cruel
<i>v it as ADJ that</i>	Judgement	Politicians <i>take it as axiomatic that</i> nobody votes for higher taxes
	Appreciation	I <i>regarded it as essential that</i> the talks I was due to have with the President should be a success

	Affect	
v it ADJ to-inf	Judgement	Fruitarians <i>believe it wrong to</i> eat the living leaves and roots of vegetables
	Appreciation	Those ... <i>find it beneficial to</i> pursue a longer initial course of study
	Affect	They <i>find it annoying to</i> stand in a queue all day
v it ADJ for n to-inf	Judgement	Mike <i>thought it silly for me to</i> wait in the car
	Appreciation	Over 90 per cent of parents <i>think it important for children to</i> play outside
	Affect	
v it as ADJ to-inf	Judgement	We <i>regard it as immoral to judge</i> people on the basis of how they were born
	Appreciation	They <i>would regard it as risky to</i> test the currency
	Affect	
it v-link ADJ about n	Judgement	<i>It's something educational about</i> government (J17 1287)
	Appreciation	<i>It's too bad about</i> the reviews
	Affect	<i>It's so sad about</i> her husband

D: 'there' patterns

Pattern	Types of lexis	Example
there v-link sth/ath/nth ADJ about n / ing	Judgement	<i>There was something special about</i> Nick
	Appreciation	<i>There's nothing good about</i> being poor
	Affect	<i>There's something immensely satisfying about</i> presiding over a busy evening in your own bar
there v-link sth/ath/nth ADJ in n / ing	Judgement	<i>There is nothing wrong</i> in setting high standards for ourselves
	Appreciation	<i>There's something original</i> in these pictures
	Affect	<i>There is something really satisfying</i> in being able to do it properly
there v-link sth/ath/nth ADJ with n / ing	Judgement	<i>There is nothing wrong with borrowing</i> to buy a house as long as the amount borrowed is affordable and the house is a good buy
	Appreciation	<i>There is nothing amiss with a little gentle exuberance</i> to celebrate a moment of sporting glory
	Affect	

E: 'what' patterns

Pattern	Types of lexis	Example
what v-link ADK v-link that	Judgement	<i>what is strange was that</i> he had never tried it before
	Appreciation	<i>what is important is that</i> the weekly staff meeting is a democratic forum for discussion
	Affect	<i>What is surprising is that</i> few scientists stop to reflect on what they are doing
what v-link ADJ v-link wh	Judgement	
	Appreciation	<i>What's important is whether</i> you make or lose money

	Affect	<i>what is puzzling is why</i> dinosaurs lasted as long as they did and how ...
<i>what v-link ADJ v-link -ing</i>	Judgement	
	Appreciation	<i>What is important is determining</i> why they were here (CML 1960)
	Affect	
<i>what v-link ADJ to-inf v-link that/wh</i>	Judgement	
	Appreciation	<i>What's important to remember is that</i> this information was never used alone
	Affect	
<i>what v-link ADJ to n v-link that/wh</i>	Judgement	
	Appreciation	<i>What is important to us is that</i> all the areas will now use the same software ... (H7B 939)
	Affect	<i>What is interesting to the railway enthusiast is that</i> the connection ... is still clearly visible. (HHE 150)
<i>what v-link ADJ about n v-link n/that/wh</i>	Judgement	<i>What was impressive about her was that</i> she was unwilling to talk about her talent unless pressed
	Appreciation	<i>What's unique about Head Start is that</i> in addition to early child education for pre-schoolers, we provide health care for the children, nutritional services, social services to the family
	Affect	<i>What is most surprising about the parsonage itself</i> is its size
<i>what v-link ADJ in n v-link that/wh</i>	Judgement	
	Appreciation	<i>What was striking in these photographs</i> were the changing expressions on the faces of the high party officials
	Affect	
<i>what v-link ADJ with n v-link that/wh</i>	Judgement	<i>What is wrong with the Greens is that</i> they do not acknowledge ...
	Appreciation	<i>What is wrong with this book is that</i> it is just one side of the story
	Affect	

Appendix 2: Grouping the lexical items into the JUDGEMENT system

Judgement	Pattern	Lexical items
Normality	ADJ for	<i>famous for, remarkable for, renowned for, notable for, notorious for, famed for, conspicuous for, well-known for</i>
	ADJ in	<i>fortunate in, prominent in, lucky in, famous in, remarkable in, outstanding in, eminent in, renowned in</i>
	ADJ to n	<i>special to</i>
	ADJ with	<i>popular with, unpopular with</i>
	ADJ to-inf.	<i>fortunate to, lucky to</i>
Capacity	ADJ at	<i>good at, adept at, bad at, excellent at, professional at, talented at, successful at, wonderful at, reasonable at, brilliant at, hopeless at</i>
	ADJ about	<i>right about, naïve about, vague about, knowledgeable about, ignorant about, clueless about</i>
	ADJ for	<i>fit for, unfit for, suitable for, ripe for, unsuitable for, active for, slow for, available for, stupid for, right for</i>
	ADJ in	<i>active in, instrumental in, successful in, influential in, useful in, fluent in, slow in, quick in, clever in, witty in, gifted in, proficient in, shrewd in, brilliant in, foolish in, wise in, imaginative in, stupid in, seasoned in, naïve in, skilled in, cunning in</i>
	ADJ of	<i>capable of, incapable of, worthy of, ignorant of, unworthy of</i>
	ADJ to n	<i>new to, responsive to, unsuited to, subordinate to</i>
	ADJ with	<i>familiar with, conversant with, ready with, skilled with, unfamiliar with, clever with, expert with, good with</i>
ADJ to-inf.	<i>able to, unable to, quick to, slow to, fit to, available to, powerless to, unfit to, foolish to, eligible to, naive to, swift to, unavailable to</i>	
Tenacity	ADJ about	<i>careful about, open about, brave about, reticent about, firm about</i>
	ADJ of	<i>mindful of, supportive of, careful of, chary of, independent of</i>
	ADJ in	<i>helpful in, firm in, uncompromising in, indefatigable in, fearless in, meticulous in, consistent in, assiduous in, reliable in, punctilious in, circumspect in, fastidious in, courageous in, careful in, conservative in, scrupulous in, diligent in, independent in</i>
	ADJ to n	<i>open to, adaptable to, loyal to, vulnerable to, immune to, receptive to, attentive to</i>
	ADJ with	<i>careful with</i>
	ADJ to-inf.	<i>careful to</i>
Veracity	ADJ that	<i>careful that</i>
	ADJ about	<i>honest about, outspoken about, frank about, equivocal about</i>
	ADJ in	<i>genuine in, blunt in, straightforward in</i>
	ADJ to n	<i>true to</i>
Propriety	ADJ with	<i>honest with</i>
	ADJ about	<i>scathing about, particular about, nice about, complimentary about, dismissive about, sensible about, rude about, specific about, fussy about</i>
	ADJ for	<i>eligible for, answerable for</i>
Propriety	ADJ in	<i>right in, wrong in, generous in, correct in, fierce in, easy-going in, profligate in, coarse in, scathing in, gentle in</i>

	ADJ of	<i>protective of, critical of, guilty of, dismissive of, oblivious of, innocent of, contemptuous of, generous of, scornful of, appreciative of, forgetful of</i>
	ADJ to n	<i>acceptable to, kind to, hostile to, rude to, oblivious to, good to, unacceptable to, generous to, fair to, nice to, responsible to, friendly to, polite to, wonderful to, blind to, amenable to, accountable to, answerable to, unkind to, sweet to, obedient to, antagonistic to, obliging to, disobedient to, gracious to</i>
	ADJ towards	<i>friendly towards, protective towards, hostile towards, contemptuous towards, slanted towards, disrespectful towards, pugnacious towards, kind towards, severe towards, conciliatory towards</i>
	ADJ with	<i>friendly with, generous with, gentle with, strict with, fierce with, tough with, wonderful with, indulgent with, short with</i>
	ADJ to-inf.	<i>free to, right to, wrong to, correct to, unwise to, ill-advised to</i>
Emotivity	ADJ about	<i>serious about, passionate about, obsessive about, optimistic about, sentimental about, confident about, solicitous about, modest about</i>
	ADJ for	<i>thoughtful for</i>
	ADJ in	<i>confident in, shy in, passionate in, modest in</i>
	ADJ of	<i>jealous of, confident of, shy of, envious of, tolerant of, intolerant of, impatient of</i>
	ADJ to n	<i>sympathetic to, sensitive to, faithful to, unsympathetic to, unfaithful to, indifferent to</i>
	ADJ towards	<i>considerate towards, thoughtful towards, ambivalent towards, solicitous towards</i>
	ADJ with	<i>impatient with, patient with, shy with</i>
	ADJ to-inf.	<i>impatient to</i>
	ADJ that	<i>confident that, optimistic that</i>