# VALENCY SENTENCE PATTERNS AND MEANING INTERPRETATION 

- Case study of the verb CONSIDER -
by


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Dedicated to
Marie and Otto Reichardt


#### Abstract

This thesis explores the interrelationship of local grammar, meaning, and translation equivalence, using a case study of the English verb CONSIDER, compared in a monolingual study with its near-synonyms BELIEVE, FEEL and THINK, and in a contrastive analysis with their German translation equivalents. The methodology fuses corpus linguistics and valency grammar, analysing and comparing monolingual and parallel corpora. Corpus investigation is found to be a reliable tool in identifying key translation equivalents and in verifying sentence patterns. Valency theory is argued to be more successful than related approaches in distinguishing between different levels of language analysis. Its flexibility regarding complement categorisation types make it possible to define categories that can be applied to both German and English appropriately in a contrastive study, in spite of the surface differences between the two languages. The findings highlight the problems of investigating the interplay of lexis and grammar in a contrastive context, and indicate that from the perspective of translation, language is much less rule-based and less phraseological than is often assumed. Applications of the research to the field of bilingual lexicography are discussed. Based on the corpus analysis and the valency analysis some sample dictionary entries are proposed.


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## ABBREVIATIONS

| A | adverbial complement |
| :--- | :--- |
| acc | accusative complement |
| adj | adjectival complement |
| Adj | adjective |
| Adjp | adjective phrase |
| aux | auxiliary verb |
| C | complement |
| C $_{2}$ | object complement |
| CL | clause |
| CNI | constructional null instantiation |
| dass | dass-clause |
| dat | dative complement |
| Dep | Dependent |
| Ext | External argument |
| gen | genitive complement |
| ind | indirect object complement |
| inf | infinitive |
| -ing | -ing-clause |
| MAN | manner complement |
| mod | modificational complement |
| N /n | noun |
| nom | nominal complement |
| NP | noun phrase |
| O | object |
| obj | object complement |
| Obj | Object |
| p | passive |
| P | predicator |
| PC | predicative complement |
| Pinf | infinitive clause |
| Pfin | finite clause |
| Pger | gerund phrase |
| PP | prepositional phrase |
| prd | predicative complement |
| prp | prepositional complement |
| S | subject |
| sb | somebody |
| Sinterrog. | wh-clause |
| sth | something |
| sub | subject complement |
| Sub | Subject |
| Swhether | whether / if-clause |
| that | that-clause |
| to-inf | infinitive with to |
| V/v | verb |
| vb | verbal complement |
| VP | verb phrase |
| VPing | gerundive verb phrase |
| vrb | verbal complement |
| wh / w | wh-clause (English) / w-clause (German) |
|  |  |

## 1 INTRODUCTION

translate<br>"When "I [use a word, "Humpty Dumpty Said,..." it means just What I choose it to mean." "Lewis Carrall: Alice Through the Looking Glass.

### 1.1 Research Topic

The above citation addresses the key issue to be discussed in this thesis. Starting with the premise that language is ultimately about meaning, this PhD research sets out to investigate to what extent the environment of a word, i.e. its local grammar, governs the identification of meaning, specifically in inter-language comparisons. The languages chosen for the contrastive analysis are English and German. The investigation into the local grammar of words draws on the popular continental valency approach, which states that words can only combine with a certain number of elements in forming larger units. For exemplification the valency sentence patterns (Satzbaupläne) of the English verb CONSIDER and those of its German translation equivalents (TEs) are compared and contrasted. In order to interpret the findings the near-synonyms BELIEVE, FEEL and THINK are included in the analysis for comparison.

From a theoretical perspective this thesis contributes to the discussion of the relevance of syntactic and semantic word environments (separately / interdependently) in the identification of word meaning in contrastive linguistics. On a broader scale, it is hoped that the findings will contribute to the linguistic community by inspiring new discussions about local grammar and its role in meaning identification. From the perspective of applied linguistics, a wide range of possible applications can be envisaged in, for example, language teaching, translation studies and dictionary compilation.

### 1.2 Research Questions

Focusing on the specific grammatical patterns or constructions which occur with individual verbs the crossing points of structural and lexical factors in sentence formation and consequently meaning creation are examined. It is argued that knowledge of local grammar can help in the identification of meaning. The first research question is thus:
> Do syntactic complementation patterns indicate differences in meaning of a word monolingually, i.e. the choice of near-synonyms, and bilingually, i.e. the choice of TEs?

For example, the specific question of whether the meaning of the verb CONSIDER is different or the same when it occurs in a divalent ${ }^{2}$ structure with a subject and an object complement, as in example sentence 1, than when it occurs in a trivalent structure with a subject, object and an adjectival complement, as in example sentence 2, will be addressed.

1) We have considered all the points in the resolution.
2) We consider the reforms necessary.

Meaning identification, as hinted at in the Carroll quote above, is subjective and based on individual interpretation. Meaning interpretation in monolingual studies is generally expressed as paraphrase, often through the use of near-synonymous words. In bilingual studies meaning interpretation is expressed through the choice of a TE. The second research question is thus:
> To what extent do words which are attributed with similar meanings, i.e. nearsynonyms and TEs, occur with the same / different syntactic complementation patterns?

If synonymous expressions or TEs take different grammatical patterns, then the act involved is not a simple replacement strategy, as is often assumed, but also requires knowledge

[^0]about necessary syntactic changes. Fischer (1997: 118), for example, notes that "for many verbs governing a prepositional complement (near-)synonymous verbs governing a direct complement can be found". This is demonstrated in example sentences 3 and 4 and their alternatives 3 a and 4 a , where the use of a near-synonym involves a syntactic change in the sentence structure.
3) ... which is why we should consider the areas in which we do not want it. Sentence Structure: SUBJECT VERB OBJECT

3a) ... which is why we should think about the areas in which we do not want it.
Sentence Structure: SUBJECT VERB PREPOSITIONAL OBJECT
4) We should think about the real causes behind this incomprehensible fact.

Sentence Structure: SUBJECT VERB PREPOSITIONAL OBJECT
4a) We should consider the real causes behind this incomprehensible fact.
Sentence Structure: SUBJECT VERB OBJECT

In the contrastive analysis the meaning of CONSIDER and 'THINK about' seem to be synonymous with regard to the chosen TE as both examples 3 and 4 occur with the same TE NACHDENKEN (3-G, 4-G) in a multi-lingual corpus.

3-G) ... und darum sollten wir auch darüber nachdenken, wo wir ihn nicht haben wollen.
Sentence Structure: SUBJECT VERB PREPOSITIONAL OBJECT
4-G) Wir müssen über die wirklichen Gründe für diese unverständliche Tatsache nachdenken.
Sentence Structure: SUBJECT VERB PREPOSITIONAL OBJECT

Examples 3 and 4 also seem to indicate that the local grammar of the verbs is not relevant in the choice of replacement with a near-synonym nor the choice of the TE. As can be seen, the syntactic sentence structure of 3 differs from those of 3 a and $3-\mathrm{G}$, while for example 4 the sentence structure remains consistent between English (4) and its German equivalent expression (4-G) but changes for the near-synonym (4a). However, more data is needed to draw a reliable conclusion. Generally, a wide range of TEs can always be expected in translation since, as mentioned above, meaning interpretation is subjective. This thesis argues that, using corpus data, the meaning of a word in one language is represented primarily by the most frequent $\mathrm{TE}(\mathrm{s})$ in another language. Therefore, with regard to the
second research question, this investigation looks at the various valency sentence patterns of CONSIDER and identifies the preferred TE(s) and their patterns.

### 1.3 Preliminary Observations

This section provides some background on my preliminary motivation and thoughts, and the positioning of this thesis, as I see it, in the wider context of linguistic investigation. The key investigation is centred around the topic of meaning identification of a word, and the issues involved in it. The research into meaning touches on various linguistic disciplines, such as for example corpus linguistics, monolingual and bilingual lexicography, local grammar - in particular the valency theory approach, translation theory and contrastive linguistics. The following discussion will briefly address the relevance of these theories to this research.

Language is ultimately about communication with others, people interact to transmit meaning. If meaning is accepted as the core feature of language, the study of meaning has to be the central linguistic discipline (Teubert 2001: 130). However, the linguistic discussion has revolved and continues to revolve around the question 'What are the constituents of meaning?'. In particular, two aspects are pursued in answering this question: one focuses on the syntactic environment, the other on the semantic environment of words. The two approaches represent the dichotomy which is generally drawn between grammar and lexis as two opposites of language analysis and meaning identification.

The underlying assumption of both approaches is that the meaning of a word is determined by its unique syntactic and / or semantic surroundings, expressed by Wittgenstein (in Firth 1968: 179) as "the meaning of a word lies in its use". However, language analysis is, by its very nature, based on categorisation and classification of observations of language in use, and therefore subjective. It is thus not surprising that there are many different ways of
describing the same phenomenon in language (Hunston and Francis 2000: 26). Within the discussion of meaning investigation the distinction between collocation and colligation in linguistic investigation has originally influenced my approach in this thesis to a large extent.

Firth re-introduced (cf. Palmer 1933) the technical terms 'collocation' (1957: 194) and 'colligation' (1968: 178) to distinguish between semantic and syntactic aspects of language investigation relating to individual words. Collocational studies focus on the semantic environment, i.e. the co-occurrence of lexical words, whereby the "distribution of common words may be classified into general or usual collocations and more restricted technical or personal collocations" (Firth 1957:195; cf. Lewis 1993: 93). Colligational studies focus on the relations between words at the syntactic / grammatical level "in terms of word and sentence classes or of similar categories" instead of between "words as such" (Firth 1968: 181). Nowadays the term 'colligation' has gained a wider definition and is frequently used to investigate the co-occurrence of a word with grammatical words, e.g. Sinclair's (1991: 81-98) investigation into the preposition 'of'. This lexical and syntactic patterning observed in authentic language use in the form of collocations and colligations is often described as "routine" (Stubbs 1993: 2), "stereotyped" (Clear 1993: 272) or "primed" (Hoey 2005: 8) use of language. This indicates that language use is to a large extent based on conventions amongst its users.

With regard to meaning investigation, the collocational approach has had a notable impact on monolingual English dictionary compilations and teaching English as a foreign language. For example, the New York Times Online (2011) noted that "dictionary makers take a special interest in high-frequency collocations, since they can be the key to understanding how words work in the world". Teubert and Čermáková (2007: 16-17) note that most single words are polysemous, i.e. their meaning depends on the context in which they are used, i.e. the co-occurrence of two or more words is often needed to create a monosemous lexical unit.

This notion of the single word being insufficient for meaning interpretation is also expressed in Sinclair's 'idiom principle' (1991: 110-112) which recognises lexical units larger than a single word.

From the colligational approach developed the theory of pattern grammar (Hunston and Francis 2000), which has been applied in the Collins Cobuild English Dictionary (1995) where different word meanings are distinguished based on word-class categorisation of the co-occurring words. Sinclair (1991: 6-7) claims that "meaning can be associated with a distinctive formal patterning" and that "there is ultimately no distinction between form and meaning". Similarly, Hunston and Francis (2000: 3) take the view that "different senses of a word are often distinguished by their typical occurrence in different [syntactic] patterns", and Fischer (1997: 7) notes that "ultimately it should be shown how forms represent, convey and also create meanings".

The above discussion so far raises, in my opinion, three issues. First, the issue that monolingual meaning interpretation is highly subjective and any connection between lexical and / or syntactic co-occurrences will therefore be difficult to prove, since meaning is not a 'fact' as such. This is already notable when looking at various dictionaries, as they differ considerably in which meanings (senses) they include for an entry. For this reason, a contrastive study based on the analysis of translation corpora was chosen for the investigation in this thesis. Of course, translators may also use a variety of equivalent translation alternatives; however, it is hypothesised that there are conventions amongst translators which will result in a small number of preferred TEs.

The second issue of interest relates to the investigation of whether the claim that [syntactic] form and meaning are inseparable can be upheld in general, and specifically in a contrastive comparison of languages, i.e. the question of whether the formal syntactic patterning of a
word in one language corresponds with a specific TE in another language. The valency approach, for example, doubts any reliance on a one-to-one relationship between form and content or meaning.

The third issue addresses the question to what extent it is possible to separate syntax and semantics in linguistic investigation. Whilst linguistics traditionally centred on grammar following Latin and Greek conventions, from the 1930s onwards a focus on the importance of lexis emerged, and "lexical perspectives on language, language learning and language teaching have made up the growth area in this field over the past 15 years" (Krishnamurthy 2005). Recent developments in linguistic study advocate a lexis-grammar continuum, i.e. the interrelatedness of lexis and syntax (Römer and Schulze 2009: 1-10), and are, according to Singleton (2000: 17), "reaching the point where it is becoming increasingly difficult to pronounce with any confidence on the question where the lexicon ends and syntax begins".

The quote demonstrates that although the idea of a lexis-grammar continuum challenges the strict dichotomy of syntax and lexis it is still upheld to a certain degree. This is, in my opinion, unavoidable since, as mentioned previously, language analysis can be carried out from a number of different angles and levels which function separately but are (partly) overlapping. Therefore, any linguistic research will have a starting point which is either oriented towards syntactic investigation or lexical / semantic investigation. This thesis explores the relationship between the local grammar of words, i.e. their syntactic environment, and their meaning interpretation expressed as near-synonym(s) in monolingual studies and as $\mathrm{TE}(\mathrm{s})$ in contrastive studies.

There are a number of grammatical concepts and theories, e.g. transitivity analysis, constituency analysis, systemic functional grammar, pattern grammar or construction grammar, available to investigate the local grammar of words. The chosen approach for this
thesis is valency grammar, and, by comparing the various grammar theories with valency grammar, it will be argued that local grammar can best be described in valency terms (cf. chapters 4, p 71, and 5, p 122).

The basic assumption of valency theory is that the verb occupies a central position in the sentence because the verb determines how many other elements have to occur in order to form a grammatically correct sentence (Homberger 2001: 114). Thus, valency complementation patterns primarily represent syntactic patterning, i.e. the local grammar of words. However, complements also have semantic functions, since valency is not to be seen simply as a 'slot-and-filler' theory (Götz-Votteler 2007: 37), meaning valency does not simply describe syntactic category slots which can be filled by any lexical item of this category. Valency theory is thus ideally suited to explore the lexis-grammar continuum in linguistic investigations. Probably because of this dual aspect, Sinclair (2004: 18) predicted that "valency grammar ... is likely to see an upsurge of interest in the next few years."

Valency theory goes beyond the concept of the observation of collocations and colligations, which only look at a word and a span of four to five words before and after this word, in that verb complementation is seen as central to sentence formation. Hence, one assumption taken in this research is that the sentence, or more specifically the simple clause, plays a pivotal role in meaning identification as its constituents only obtain meaning in relation to other clause constituents (cf. Emons 1974: 129). In this approach the research distinguishes itself from other approaches into meaning identification, which mainly deal with the analysis of phrases and collocations (Biber et al. 2004, Ellis 2008, Granger and Meunier 2008b, Groom 2005, Hoey 2005, Hyland 2008, Sinclair 1991 and 2008, Wulff 2006 and many more).

Valency grammar is thus not a general grammar but a local grammar, focusing on the syntactic (and semantic) restrictions which belong to individual words, and belongs to the
lexicon. According to Sinclair (1991: 109-110) there are two models of language interpretation: the open-choice principle and the idiom principle.

The open-choice principle is the principle on which general grammars are based; it states that the use of a word or phrase opens up a potentially large number of choices regarding the following word or phrase. The open-choice principle thus represents the above mentioned 'slot-and-filler' model. However, since the choices are restricted by the local restraints of the word or phrase (ibid.) the open-choice principle, representing general grammars, is of little benefit in exploring the interplay of lexis and syntax in meaning identification.

The idiom principle, as defined by Sinclair (ibid.), relates to the "large number of semipreconstructed phrases that constitute single choices, a unit of meaning, even though they might appear to be analysable into segments", i.e. individual words. In my opinion the idiom principle is often understood as an encouragement to focus on lexical co-occurrences, rather than on the interplay of lexis and syntax in linguistic investigation. However, whilst these 'semi-preconstructed phrases' may have to be understood as single units representing meaning, it is indisputable that these also underlie syntactic restrictions. The issues raised by the idiom principle are, first, the question of what constitutes a 'unit of meaning' and, second, how the syntax of meaning units larger than the single word is to be analysed.

The ambiguity of the term 'word' for linguistic meaning interpretation has been widely discussed (cf. Saussure (1983) or Katamba (1994)). However, no consensus has been reached as to what forms a 'unit of meaning' as there are "no objective criteria available for the analysis of meaning" (Sinclair 1991: 7) or, in other words, meaning identification is an interpretive act conducted by language users. Sinclair $(1996,2004)$ proposes the concept of 'extended units of meaning', arguing that the choice of words in a sentence is frequently
compromised by lexico-grammatical as well as semantic constraints (Tognini Bonelli 2001: 104). However, the notion of 'extended units of meaning' cannot provide objective criteria with regard to the identification of a 'unit of meaning'.

The question of what are the constituents of meaning becomes especially important in contrastive linguistics, particularly in its sub-categories of translation studies, bilingual dictionary compilation and second language teaching, in the form of the discussion of the size of a 'translation unit'. The 'units of meaning', i.e. the translation unit and the translated unit, are often of varying sizes and translation on a word-by-word basis seems mostly impossible. Furthermore, there is often more than one TE available, demonstrating, on the one hand, the polysemy of words and phrases and, on the other, implying that the alternative TEs are synonymous. Are these differences due to semantic or syntactic features, i.e. are they based on lexical or syntactic patterning?

The approach taken for the case study is that the smallest unit of translation is, as far as possible, the word and its respective TE. However, it is hypothesised that the individual word gains its specific meaning through its syntactic (and semantic) environment, i.e. its syntactic valency complements, which form part of the unit of translation. This approach allows the showing of any possible interdependence of lexis and grammar in the contrastive analysis.

Multi-word units, mainly in the form of phrasal verbs, support-verb-constructions (Funktionsverbgefüge), idioms or fixed phrases, are acknowledged, and treated as single units. An advantage of using valency theory for the analysis of the local grammar is that the theory can accommodate multi-word units, i.e. phrases and idioms. Multi-word units are distinguished between phrases below the clause or sentence level and phrases representing clauses or sentences (Wotjak and Heine 2007: 42). Phrases below the clause level are
treated as a single unit of meaning, as the valency carrier, with their own specific valency complements (Schumacher et al. 2004: 54, 110).

The valency sentence patterns of the verbs under investigation and their respective TEs are identified through corpus analysis. Corpus linguistics can be described as the study of language on the basis of text corpora, consisting of a collection of authentic texts assumed to be representative of a given language, or other subset of a language (Aijmer and Altenberg 1991: 1). In a contrastive study this means that meaning interpretation by the researcher is not necessary, and the findings are based on the frequency of occurrences in the corpus. It has to be noted though that, whilst corpus research can help with the investigation of the frequencies of patterns, the interpretation of the results still "requires human intentionality, as any interpretation is an act involving consciousness" (Teubert 2001: 129). As such, corpus linguistics is a method for linguistic enquiry, rather than a scientific theory.

This thesis is rooted within the realms of the above discussion, and it is hoped that the findings will revive the discussion on the local grammar of words and its contribution to the identification of meaning in general, and in contrastive studies based on corpus investigation in particular. Overall, it is believed that the approach and the methods applied in this PhD research will be applicable and valid for investigation into most, if not all, languages. However, acceptance or refutation of such a claim is beyond the scope of this study as it requires further research into other languages and long-term field studies.

### 1.3.1 Related Studies

There are very few studies contrasting the syntactic aspects of the English and German lexicon. In the following I would like to introduce two studies / projects that are, at first glance, similar to the current research, yet significantly differ in their approach from this study. The
first study is by Duffner et al. (2009) which looks at the collocations of the German polysemous verb EINSTELLEN and its TEs in English, French and Italian and their collocations. The second study looks at the polysemous verb CONSIDER (Noël 1996), and originates from the CONTRAGRAM-Project (Simon-Vandenbergen et al. 1996) which investigates a Dutch, French and English contrastive grammar for foreign language teaching.

In an attempt to illustrate the benefits of corpus linguistics in valency analysis and in bilingual lexicography, Duffner et al. (2009) carry out a case study for the German verb EINSTELLEN. Their approach starts with an analysis of collocates (Kookkurrenzpartner) of the verb EINSTELLEN based on the German monolingual corpus DeReKo, from which they identify eight meaning categories (Unterbedeutung) of the verb EINSTELLEN as shown in table 1.1.

| Unterbedeutung | Bedeutungsangabe | Wichtige Kookkurrenzpartner |
| :---: | :---: | :---: |
| 1.etw.einstellen | mit etw. aufhören, etw. nicht fortsetzen | Verfahren (wegen Verjährung), Betrieb, Produktion (vorübergehend), Ermittlungen (ergebnislos, mangels Beweisen), Zahlungen, Geldbuße, Kampfhandlungen (unverzüglich), Erscheinen, Arbeiten, Kämpfe, Verkehr, Tätigkeit, Angriffe, Suche, Rauchen, Bombardements, Feindseligkeiten [...] |
| 2. jdn.einstellen | in ein Arbeitsverhältnis aufnehmen, anstellen | Mitarbeiter, Lehrlinge, Personal, Arbeitskräfte, Lehrer, Auszubildende, Behinderte (bevorzugt), Arbeitslose, Ersatzkraft, Beschäftigte [...]/ zusätzliche, befristet |
| 3. sich auf jdn.letw. einstellen | sich auf etw. vorbereiten | darauf, Gegner, (neue) Situation, (veränderten) Bedürfnisse [...]/ optimal, mental, bestens, taktisch (hervorragend) [...] |
| 4. einstellen in etw. | für etwas vorsehen, budgetieren | Haushalt, Etat, Nachtragshaushalt, Haushaltsplan [...] |
| 5.etw. einstellen | regeln, justieren | Visier, Kopfstützen, Skibindung, Außenspiegel [...]/ neu, richtig, manuell, stufenlos [...] |
| 6. etw. einstellen | egalisieren | Rekord, Platzrekord [...] / von |
| 7. eingestellt sein auf etw. | eine bestimmte <br> Meinung / Gesinnung haben | positiv, kritisch, feindlich, skeptisch [...]/ von Kopf bis Fuß auf Liebe, auf Sieg [...]/ gegenüber |
| 8. sich einstellen | eintreten, sich einfinden | (erhoffte, gewünschte) Erfolge, Gratulanten [...] |

Tab. 1.1: Meaning categories and their collocations for the polysemous verb EINSTELLEN (Duffner et al. 2009:47)

The collocations are listed according to their collocation strength and valency complement type, e.g. accusative object, prepositional complement, and so on. This approach has to be criticised slightly from a valency perspective, as, in my opinion, the role of the valency complements is somewhat unclear in the research.

For example, as entries $1,2,5$ and 6 share the same valency structure <sub obj>, meaning differentiation in these cases is solely established on the basis of the collocates. For the remaining four meaning distinctions I would argue that only meaning 4 represents the verb EINSTELLEN, meanings 3 and 8 could be classified as a multi-word verb 'sich EINSTELLEN'. In any case, differentiations 3, 4, and 8 can be distinguished by the valency pattern itself.

Meaning 4 Meaning 3 sich einstellen alternative analysis:

Meaning 8 sich einstellen alternative analysis:
<sub prp-in> <sub prp-aut;
<sub acc-reflexive pronoun prp-auf>
<sub>
<sub acc-reflexive pronoun>

Finally, meaning 7 applies only to the word-form 'eingestellt' and not to the lemma. The verb is actually 'eingestellt SEIN', where SEIN (be) is inflected and could be understood as the head of the verb phrase; the valency patterns for the multi-verb 'eingestellt SEIN' are <sub adj> or <sub prp-auf>.

These German meaning categories are then applied to the occurrences of the verb EINSTELLEN in the EuroParl corpus, and the corresponding translations in English, French and Italian are identified. Although there is a wide range of TEs for each meaning category, the most frequent TE in each category is different to those in other categories. Duffner et al. (2009) term this preferred TE 'standard translation'.

Based on the assumption that the TEs within a meaning category are to some degree synonymous, a collocation analysis for the TEs is undertaken. The idea is that the frequent collocations will show dictionary users the difference in use between the 'synonymous' TEs. For example, meaning 2 of EINSTELLEN is often translated with EMPLOY and RECRUIT, whereby EMPLOY shows affinity to the object complement 'people' and RECRUIT to 'staff'.

Duffner et al.'s (2009) findings demonstrate the benefits of collocation analysis in bilingual contrastive studies focusing on dictionary compilation. However, the question which arises in my opinion is whether it is necessary to first establish meaning categories in one language before looking at the TEs. An advantage of first establishing meaning categories in one language is certainly that the most frequent TEs within each category become clear. On the other hand, it means that for each of the four languages meaning categories need to be established first since translations are not generally reversible.

The second study reports on the procedure for an entry in the CVVD (Contrastive Verb Valency Dictionary) on the verb CONSIDER (Noël 1996). Similar to Duffner et al. (2009), the starting point of Noel's investigation is a monolingual investigation into the possible meanings of CONSIDER. Unlike Duffner et al.'s (2009) study, Noël (1996) establishes the link between meanings and valency patterns clearly (table 1.2). Five different meanings of the verb CONSIDER are identified in the monolingual analysis. In the next step the TEs of CONSIDER in Dutch and French are identified. However, unlike most bilingual dictionaries, the CVVD only shows the prototypical equivalents. The term prototypical is defined as "translation equivalents with which people will come up most spontaneously" (SimonVandenbergen 1996: 9). The dictionary entry for CONSIDER will therefore look as shown in table 1.2.

|  | beschouwen | considérer | consider |
| :---: | :---: | :---: | :---: |
| I. <br> - 'van mening zijn, vinden dat, aanzien als' <br> - 'juger, penser' <br> - 'to have the opinion' | 1. <br> NP $\qquad$ NP als $\mathrm{C}_{2}$ $\qquad$ $\qquad$ $\mathrm{NP}==>\quad H E T$ dat Pfin/(om) te Pinf $_{1}>$ <br> 2. <br> >>> vinden <br> 3. <br> >>> vinden | 1. $\begin{aligned} & \overline{\mathrm{N}} \mathrm{P}_{<\ldots \mathrm{NP}(\text { comme }) \mathrm{C}_{2}}^{\mathrm{NP}==>\text { de } \mathrm{Pinf}_{1}>} \end{aligned}$ <br> 2. $\qquad$ que Pfin <br> 3. >>> penser | 1. |
| II. <br> - 'kijken naar, de aandacht richten naar' <br> - 'regarder à, porter son attention sur' <br> - 'to look at, turn to mentally' |  |  | $\begin{array}{\|lll} \underline{1 .} & & \\ \mathrm{NP} & & \mathrm{NP} \\ \underline{2 .} & \\ \mathrm{NP} & & \mathrm{NP}[\mathrm{~h}] \\ \underline{3 .} & \\ \mathrm{NP} & & \\ \hline \end{array}$ |
| III. <br> - 'rekening houden met, in beschouwing nemen' <br> - 'prendre en compte' <br> - 'to take into account' | 1. <br> >>> houden / nemen <br> 2. <br> >>> houden / nemen | $\begin{aligned} & \frac{1 .}{\mathrm{NP}} \quad \text { __ } \mathrm{NP} \\ & \frac{2 .}{\mathrm{NP}} \quad \\ & \end{aligned}$ |  |
| IV. <br> - 'onderzoeken, bespreken, nadenken over' <br> - 'réfléchir à, débattre de, s'entretenir' <br> - 'to think carefully about, debate' | 1. <br> >>> onderzoeken / bespreken / nadenken <br> 2. <br> >>> onderzoeken/ <br> bespreken / nadenken <br> 3. <br> >>> onderzoeken / <br> bespreken / nadenken | 1. $\qquad$ NP <br> 2. <br> >>> réfléchir / examiner/ s'entretenir <br> 3. <br> >>> réfléchir / examiner/ s'entretenir |  |
| V. <br> - 'een mogelijkheid overwegen' <br> - 'envisager une possibilité' <br> - 'contemplate a possibility' | 1. <br> >>> overwegen <br> 2. <br> >>> overwegen <br> 3. <br> >>> overwegen | 1. <br> >>> envisager <br> 2. <br> >>> envisager <br> 3. <br> >>> envisager |  |

Tab. 1.2: CVVD entry for the verb CONSIDER

As can be seen, the English verb CONSIDER, the French verb CONSIDÉRER and the Dutch verb BESCHOUWEN are seen as proto-equivalents. With such an approach the differences between source and target language disappear (Noël 1996: 92). Syntactic differences between lexical meaning and syntactic valency structure between the three proto-equivalents are easily notable. Language gaps, i.e. occurrences where a different TE is more common than the originally identified proto-equivalent to represent the meaning, are shown. For
example, for the fifth meaning 'contemplate a possibility' of CONSIDER the French and the Dutch TEs are ENVISAGER and OVERWEGEN, respectively. A possible drawback of the dictionary presentation is that the syntactic structures of these TEs are not shown.

It is notable that when the three proto-equivalents express the same meaning they also occur with the same valency sentence pattern. This could indicate that the preferred TEs of a word will in general occur with the same valency sentence pattern as the source word.

The case study on the verb CONSIDER and its near-synonyms BELIEVE, FEEL and THINK, presented later in the thesis, distinguishes itself from the above studies in that it does not set off by differentiating monolingual meaning categories based on syntactic patterning of the words and comparing these to TEs and their patterns. This PhD research only indentifies the valency sentence patterns with which a word can occur and investigates firstly whether these patterns 'prefer' different TEs, and secondly the syntactic patterns of the most frequent TEs. The rationale is that identifying meaning in monolingual research is largely an interpretative process and the results will vary from researcher to researcher or from one lexicographer to another. With the growing acceptance of the interplay of lexis and syntax, attempts are undertaken to distinguish different meanings of polysemic words or phrases from each other based on the semantic or syntactic environment in which they occur. However, meaning interpretation is mainly probabilistic, i.e. it is difficult to find categorical conditions. For example, Bosch (1985: 251-258) sees a case for the notion that in several occurrences of a word its meaning is always slightly different. This implies that, at least in monolingual analysis, meaning is infinite. Still, since in communication comprehension is not impeded by this in general, there must be factors or criteria to support meaning differentiation. This notion is held by Cohen (1980: 44) commenting on "the tendency in language to restore to each meaning a form of its own".

### 1.4 Outline of the Thesis

The thesis is divided into nine chapters. This introductory chapter set out to provide an overview of the background and the angle of my research, the issues I would like to address and general aims of the investigation. It should be noted that there is no individual chapter dedicated to a literature review per se. The relevant literature as it relates to the discussions in this thesis is referred to throughout.

Chapter 2 introduces the methodology and the approach taken for the case study. The chapter discusses the chosen corpus linguistic approach for a contrastive study, the rationale for opting for a 'manual' rather than a 'computational' automated analysis of the concordance lines and argues that the analysis of a limited number of examples is sufficient to come up with reasonably reliable findings. Furthermore, valency theory is suggested as a method to investigate the local grammar of words in order to identify syntactic similarities and differences between words and their equivalent expressions in another language. This chapter also gives an overview of the various steps involved in the case study investigation.

Chapter 3 critically discusses the issues regarding the use of corpus linguistics in a bi- or multi-linguistic context. Advantages and possible problems with the use of corpora in contrastive studies are discussed. The chapter also addresses the definition and identification of 'translation units', 'translation equivalents' or 'translated units', and 'units of meaning' in general. Within the area of contrastive linguistics, issues regarding second language teaching and dictionary compilation are also considered. It will be argued that the rise of corpus linguistics went hand-in-hand with a new focus on lexis in linguistic analysis to the disadvantage of grammar and syntax. In addition, a comparison of the corpora used for the investigation (EuroParl and Oslo Multilingual Corpus (OMC) for the contrastive study, Bank of English (BoE) and Deutscher Referenz Korpus (DeReKo) as reference corpora) is undertaken.

Chapters 4 and 5 are dedicated to valency theory. Chapter 4 shows the various aspects of valency complement categorisation. It will be argued that valency theory is an adaptable concept to study language from different angles and viewpoints, and is able to accommodate semantic and syntactic considerations of language investigation. The possible classification aspects of valency complements based on word-class, syntactic function, syntactic case, semantic restrictions / features and semantic roles will be introduced. In a comparison with various influential grammatical theories of the $20^{\text {th }}$ century, such as frame semantics and case grammar by Fillmore $(1968,1977)$, systemic functional grammar by Halliday (1985) and construction grammar by Goldberg (1995), it will be shown that elements of the different valency categorisation classes can also be found in these grammars.

Chapter 5 focuses on the use of syntactic valency complementation in contrastive linguistics. It argues that valency theory is firmly placed within the lexicon, i.e. it is not a general grammar theory, as valency investigates the local grammar of words. A comparison of valency theory with alternative syntactic analysis methods, transitivity analysis and constituency grammar, aims to demonstrate the benefits of a local grammar approach in the investigation of the interplay of meaning and syntax in contrastive linguistics. The chapter also addresses long-standing issues regarding the differentiation of valency complements and adjuncts with a contrastive approach in mind. In order to compare valency complementation patterns (Satzbaupläne) between languages it is imperative that the same valency categories are used for both languages. The reasoning for the labelling of the valency complements used for the contrastive case study will also be explained.

Chapters 6 and 7 form the 'heart' of the research and report the English-German case study undertaken for CONSIDER. Chapter 6 reports on the identification of the valency sentence complements (Satzergänzungen) and their frequencies of use using a corpus approach. The findings are compared with those of the reference words BELIEVE, FEEL and THINK.

Chapter 7 starts with an identification of the most frequent TEs and explores a possible interrelationship between the local grammar of the verbs under investigation, i.e. their valency sentence patterns, and the TEs. The findings will show that that although valency sentence patterns are a good indicator of possible TEs, other factors such as active or passive structure or phraseology also seem to play a role regarding the choice of a TE.

In chapter 8 possible applications of the findings of the case study are discussed, with the focus on dictionary compilation. Two suggestions are put forward. Firstly, a bilingual specimen dictionary entry English-German for the verb CONSIDER will be suggested. This discussion includes a comparison of current practice in bilingual dictionary compilation. My argument is that current practice in bilingual dictionary compilation needs re-thinking, and that a new practice is needed which shows lexical and syntactic information in a comparable way between two languages. The second suggestion is for a monolingual English thesaurus and the concept of 'semantic fields' as introduced by Schumacher (1986) for German will be explored for English.

Chapter 9 constitutes the conclusion. The aims and objectives of the thesis, and the hypotheses of the case study investigation will be revisited. The findings are drawn together, open questions are addressed and an outlook for possible future studies and the development of linguistic research regarding the issues are suggested.

## 2 METHODOLOGY OF THE CASE STUDY

### 2.1 Introduction

This chapter discusses the framework within which the case study is set. Section 2.2 provides a general outline of the key methods, corpus linguistics and valency theory, applied in the investigation. The corpora studied in this thesis will be described and possible issues of the chosen approach with regard to the analysis will be pointed out. This section also describes the procedure of the case study itself, i.e. procedures followed in the case study are made explicit. The chosen approach demonstrates that a limited number of randomly chosen concordance lines, i.e. extracts of text from the corpus displaying a specific word and its context, can be sufficient to come up with relatively reliable findings. Furthermore, the conventions for the presentation of the findings are introduced. Expected findings, the hypotheses for the case study, are outlined in section 2.3.

### 2.2 Methodology

A corpus linguistic approach is used for the analysis. The bottom-up nature of corpus investigation (Charles 2007: 290) is used to derive the syntactic complementation categories and the TEs. The investigation is therefore largely corpus-driven and corpus-informed rather than corpus-based (Tognini-Bonelli 2001: 65-85, 84-100). However, corpus-driven does not imply that the researcher assumes a 'tabula rasa' state of mind, as this would be impossible anyway, but rather that, as noted by Francis (1993: 139), "we need to be ready to abandon our theories at any moment and posit something new on the basis of evidence". Working with translation corpora and monolingual corpora as reference corpora (Hunston 2002: 15) 'real' or 'authentic' occurrences of syntactic structures are identified and described. The syntactic analysis is based on valency theory (Tesnière 1980). The contrastive analysis of English and German meaning interpretation in the form of TEs is undertaken and the syntactic structures
between the original and the TE are compared in order to investigate possible links between the local grammar of a word and word meaning between the two languages.

Four corpora were chosen for the investigation, these are the parallel or translation corpora EuroParl (Speeches of the European Parliament) and OMC (Oslo Multilingual Corpus), and the monolingual English corpus $\mathrm{BoE}^{3}$ (Bank of English, corpus at the University of Birmingham) and the monolingual German corpus DeReKo (Deutscher Referenz Korpus, corpus at the Institute of German Language, Mannheim). This means that the corpora used for the analysis were not compiled by me and general issues of corpus compilation and data selection are not of relevance with regard to the methodology. What is of relevance, however, and needs to be taken into consideration are the differences that exist between the corpora.

Both parallel corpora, EuroParl and OMC, could be described as somewhat specialised. Most notably there are genre differences, while the EuroParl corpus consists of European Parliament Proceedings published in the eleven official languages of the European Union, the OMC corpus consists mainly of fiction writing (for a more detailed discussion of possible genre differences see chapter 3, p 37). Another significant difference is that the EuroParl corpus does not identify from which language a text was translated, while the OMC identifies the translation direction, i.e. from which language a text was translated. The OMC corpus therefore consists of two sub-corpora: English as original language (OMC-O) and English as translated language (OMC-T). In both corpora the texts are aligned at sentence level.

For the present study, translation direction as such is not seen to be relevant since the interest lies in the syntactic differences between an English verb and the German

[^1]counterpart. However, it should be noted that since source language (original) and target language (translation) are unknown in EuroParl, it is, strictly speaking, not correct to talk of TEs in a comparison of different languages in EuroParl. Nevertheless, for simplicity this report refers to English as the source language and German as the target language, i.e. the TE. Although the corpora are not comparable, i.e. they are not designed in the same way and do not necessarily contain the same text types or in the same proportion, I am of the opinion that using two different corpora has the advantage that the greater variety of texts and range of translators represented increases the validity and reliability of the investigation (Johansson 2007: 5). Additionally, this approach allows investigation of whether there is a difference in the preference of the syntactic patterning between different genres.

The monolingual corpora, BoE and DeReKo, function as reference corpora. They are useful for the establishment of valency sentence patterns, i.e. they help to validate the findings of the contrastive study.

In order to extract data from a corpus, corpus investigation software is needed. The OMC and BoE corpora have inbuilt concordance programs which allow for direct data search. The DeReKo corpus can be investigated using COSMAS (Corpus Search, Management and Analysis System) which is provided on the website of the Institute for German Language (www.ids-mannheim.de). For analysis of the EuroParl corpus, the data files first have to be downloaded from the EuroParl website (www.statmt.org/europarl) before investigation with a concordance program is possible. The concordance program used for the case study is ParaConc269 (Barlow 2004). The random selection of concordance lines for investigation is based on $\mathrm{n}^{\text {th }}$-occurrence in all programs. The concordance programs of OMC and COSMAS do not offer the possibility of collocation extraction, while the BoE has this option. For collocation extraction in the EuroParl corpus the program WordSmith (Scott 1996) was used.

The focus of the corpus investigation lies on the English verb CONSIDER and studies the possible interplay of its valency sentence patterns and its TEs. The verb CONSIDER was chosen as it is a frequent verb (Leech et al 2001: 282), is polysemous, i.e. it has several senses, and can occur in a variety of syntactic patterns. Furthermore, the fact that a number of linguistic studies, see for example Noël (1996) and Schneider (1988), are based on the verb CONSIDER indicates that it is suitable for investigation. In order to highlight the implications of syntactic patterning the near-synonymous verbs BELIEVE, FEEL and THINK and their TEs are used as reference words. Only in the comparison between the four words and their TEs do differences and similarities in usage become apparent.

In the bilingual analysis meaning or word sense is established through the TEs occurring in the parallel or translation corpora. Another possibility would have been to perform a search for TEs provided in bilingual English-German dictionaries. However, this approach would have presumed that dictionary entries reflect actual language use, i.e. translation conventions and practice. That such a presumption cannot be made will be shown in a comparison between the corpus findings and a sample of different dictionary entries.

The method chosen for the investigation of the local grammar of the verb CONSIDER and its TEs is valency theory. Verb valency distinguishes between sentence elements that have to occur with a verb in order to form a syntactically and semantically correct sentence, the complements, and those sentence elements that can basically occur with any verb, the adjuncts. The term 'complement' is somewhat ambiguous, as "there is some uncertainty and disagreement among grammarians, as to how much should be subsumed under the function complement" (Huddleston and Pullum 2002: 219). Throughout this report the term 'complement' is used when relating to elements which constitute part of the valency of a word. This is contradictory to many traditional grammars where the term is used to denote the complementation of link verbs or copulas (Quirk et al 1985: 1171-1174, Sinclair 2005:

172-182). The term 'complementation' is used in this study when referring to syntactic and semantic patterns in general which can occur with a word. Verb valency refers to (simple) clause structure, shown as valency sentence pattern, and therefore offers a more holistic approach in contrastive studies and in meaning identification compared to verb complementation patterns that focus on the phrase and where the clause is only implicit. For this reason, in valency theory the simple clause is often described as the smallest communicative unit expressing meaning (see also Jespersen 1924: 307, Emons 1974: 6-7).

Although valency theory can account for syntactic and semantic verb complementation (cf. chapter 4, p71), this thesis focuses on the analysis of syntactic valency complements. This decision is rooted in an attempt to counteract current research and teaching trends, which, in my opinion, despite referring to lexical-grammatical patterns, predominantly stress the importance of phraseology and collocation. This is, for example, exemplified by the following quote by Römer (2009: 141): "If there is one finding of modern (computer) corpus linguistic research [...] it is that language is highly patterned. To a high degree, language is made up of fixed or semi-fixed units, and the co-selection of language items can be predicted on the basis [...] of collocation and phraseology". Grammatical influences on phraseology and collocations seem to be mainly neglected, contradicting Sinclair et al (Sinclair et al 2004: 16) who noted that "grammatical influence frequently overshadows and cuts across lexical patterns of behaviour".

A possible drawback of combining the methodological approaches of corpus and valency investigation is that valency theory is less suited for the conventional corpus analysis of concordance lines with a typical span of five to eight words to the left and right of the node, the word under investigation, as it is based on the clause and requires investigation into complete sentences or clauses. Moreover, working with a span, i.e. a sequence of words out of context, rather than with the clause, is more suitable for languages with a relatively fixed
word order such as English, but is less suitable for languages with a more flexible word order such as German. Additionally, the standard convention of word-tagging by word-class in corpus linguistics, although helpful, is not always adequate for valency analysis, as valency complements are generally based on the function they fulfil in a sentence. But a particular function is not always realised by the same formal category (O'Halloran and Coffin 2005: 76). For example, a noun or noun phrase can fulfil the functions of subject or object. Overall, it seems that current conventions in corpus annotation, i.e. word tagging and parsing, are aimed at the investigation of phrases and collocations, and are more suited to languages with a relatively fixed word order. These conventions are probably the reason why German corpus linguistics is often said to be less progressive and lag behind compared to English corpus linguistics.

The analysis in the case study is based on sentence level. In cases where the corpus investigation program did not initially allow for the extraction of whole sentences, as for example the BoE corpus, the investigation span to the left and right of the node was extended to ensure whole sentences were shown.

The syntactic analysis of the valency complements was done manually (for a more detailed description see section 2.2.1 below). Rather than starting this research with a pre-determined set of valency sentence patterns for the verb CONSIDER, which could have been derived from dictionary entries or previous research, sentences were randomly chosen and analysed for valency sentence patterns and TEs. For simplification these sentences are referred to as concordance lines. It is important to note that "concordance lines present information, they do not interpret it. Interpretation requires the insight and intuition of the observer" (Hunston 2002: 65). In general, it has to be said that working with 'real' language examples imposes many difficulties on the researcher, since patterns are not as easy to identify as textbook examples lead one to believe and texts often require detailed analysis (Hoey 2005: 46). The
relevance of these two statements is best demonstrated by looking at the 10 concordance lines shown in figure 2.1.

$$
\begin{aligned}
& \text {... ld like to congratulate Mr Berenguer Fuster on what I [[consider]] to be an excellent report. I can identify with it very .. } \\
& \text { opean Free Alliance - the reasoning in whose speech [ [consider]] to contain a slight contradiction . On the one hand, } M \\
& \text { ent Denmark in Parliament, made contributions that I [[consider]] to be part of the discussion of and campaign for domesti } \\
& \text {, just as they reject elderly men and women whom they [[consider]] to be a burden. Instead of this culture of death , let } \\
& \text { ort and I would like to emphasise one aspect which we [[consider]] to be essential. It is not enough merely to state that } \\
& 11 \text { take into account a whole raft of subjects that we [[consider]] to be crucial. The document still, however , falls sho .. } \\
& \text { ng the agreement on intellectual property, which you [[consider]] to be necessary, I do not think that a thorough revisio .. } \\
& \text {, since such judges will only be able to handle cases [[considered]] to be minor ones, following an investigation of the c... } \\
& \text { prove the common position, rapid implementation was [[considered]] to be the most important thing. We are well aware of } \\
& 0 \ldots \text { in relation to } 1990 \text {, as at the time this measure was [[considered]] to be exceptional. At the present time , it is becomi ... }
\end{aligned}
$$

Fig. 2.1: Concordance lines for the pattern CONSIDER+to+inf

The concordance lines from EuroParl seem to indicate that there is a valency sentence pattern <sub vb-to-int> for the verb CONSIDER, where CONSIDER is directly followed by a to-inf-clause. However, since the identification of verb valency complements is based on the simple canonical clause, such a conclusion would be wrong, as exemplified in the transformation of lines $1^{\prime}, 5$ ' and $9^{\prime}$.

1') I consider it to be an excellent report.
5') We consider this aspect to be essential.
$9^{\prime}$ ) Someone considered the implementation to be the most important thing.

The transformation shows that the valency pattern for CONSIDER in the ten examples is actually <sub obj vb-to-int>.

An identified valency sentence pattern is verified by its frequency of occurrence. A similar approach was used by Ágel (1988: 95-109) who proposed the use of frequency analysis to empirically support decisions regarding the acceptance of valency complements when investigating a text written in Frühneuhochdeutsch (Early New High German). Of course, Ágel's motives were different: first, there were no speakers of Frühneuhochdeutsch left, and second, he saw Frühneuhochdeutsch as a language in its own right and did not want to analyse it by referring to, as he terms it, diachronic 'competence transfer'. However, the approach is also suitable for the current study.

Where to set the cut-off point for acceptance as a valid valency sentence pattern has to depend on the purpose of the study. For example, Tognini Bonelli (2001: 89) notes: "It is appropriate to set up as the minimum sufficient condition for a pattern of occurrence to merit a place in the description of the language, that it occurs at least twice, and that the occurrences appear to be independent of each other". In the case of valency theory this means that two independent occurrences of a certain structure ought to prompt further investigation. Acceptance as a valency sentence pattern is then based on usage, i.e. frequency of occurrence.

In her study on English verbs investigating "the extent to which verb complementation patterns can be predicted from verb meaning", Faulhaber (2011: 20-21) includes, alongside frequency, "a number of British and American native speakers" to verify valency sentence patterns and semantic judgements. Despite being aware of the issues regarding native speaker judgements (Labov 1972: 192-201; Greenbaum 1977: 5) Faulhaber justifies her decision as follows: "native speaker interviews and tests are the only methodology available if no authentic example sentences can be identified". Whilst there may be justification for using native speaker intuition to verify semantic judgements ${ }^{4}$, it seems strange to me that her study includes hypothetical, i.e. syntactic valency patterns that do not occur in such a sufficiently sized corpus as the British National Corpus, which was used for her study. This thesis includes only patterns which occurred in the corpora. Since I am of the opinion that current language use is represented in a corpus, the 'naturalness' or 'acceptability' of patterns does not need to be verified by native speakers. For example, when looking at the possible replacement of near-synonymous verbs in a sentence, I only accepted exchange as possible when other occurrences of the near-synonym with the valency sentence pattern under investigation were present in the corpus.

[^2]In the next section an outline of the case study is given, and the procedure undertaken for the analysis will be discussed.

### 2.2.1 Procedure

The case study is divided into four steps. First, the TEs of CONSIDER and its nearsynonyms BELIEVE, FEEL and THINK were identified and analysed; second, the valency sentence patterns of the verbs under investigation were identified and analysed; third, the valency sentence patterns of the frequent TEs were analysed; and fourth, the valency sentence patterns of CONSIDER and the near-synonymous verbs were analysed for their most frequent TEs and the patterns of the original and the chosen translation were compared. The findings of the case study are presented in chapters 6 ( $p 170$ ) and 7 ( $p 221$ ).

Starting with the verb CONSIDER, 100 concordance lines were chosen randomly from EuroParl and analysed for its TEs (extract app I, p 336). CONSIDER occurs with a wide range of TEs and it was felt that 100 lines were not sufficient to make conclusive statements regarding the preferred TEs. Hence, another 100 lines from EuroParl were included in the analysis. In addition, 200 lines from the OMC ( 100 lines from OMC-O, 100 lines from OMCT) ${ }^{5}$ were analysed for the TEs. As I am not particularly interested in genre differences or difference in translation direction in this study, the findings from both corpora are mainly treated as one combined finding in the interpretation of the data. However, in the tables produced for presenting the findings in chapters 6 and 7 the corpora results are shown separately. This option allows for a subsequent possible analysis into genre differences.

[^3]Occurrences where the verbs under investigation function as adjectives, example sentence 11, or nouns, example sentence 12, were excluded, since this study is concerned with verb valency. Excluded lines were replaced.
11) I hope that the House will, on reflection, accept the [[considered]] view of the Commission.
12) This attitude says much about the [[thinking]] behind an operation which was deceitfully presented as being entirely centred on the improved comfort of citizens.

The same procedure was followed for the verbs BELIEVE, FEEL and THINK. The findings of this investigation are discussed in sections 7.2 ( p 222 ) and 7.3 (p 239).

In the next step the possible valency sentence patterns for the verbs under investigation were identified. For this, the 200 EuroParl lines (extract app I, p 336) which were used for the identification of the TEs were analysed. Additionally, 200 lines from the BoE were included for reference (extract app II, p 338). The identification of valency complements is based on the active clause, resulting in the transformation of other structures, mainly passives, for the analysis, e.g.:

```
13) The King's role, if he is to have one, must, in my opinion, be considered with this
```

    objective in mind.
    
## Transformation:

13') We/They must consider the king's role with this objective in mind.
13-G) Die Rolle des Königs, wenn er denn eine Rolle spielen soll, muss meiner Ansicht nach unter Berücksichtigung dieses Ziels in Betracht gezogen warden.
Transformation:
13'-G) Wir/Sie müssen die Rolle des Königs unter Berücksichtigung dieses Ziels in Betracht ziehen.

A general discussion on what constitutes a valency complement and what is seen as an adjunct is found in section 5.3.1 (p 141) of this thesis. The same syntactic analysis with 200 lines from each of the corpora EuroParl, the OMC and the BoE was performed for the verbs BELIEVE, FEEL and THINK. The findings of this investigation are discussed in chapter 6 (p 170).

Having established the valency sentence patterns and the preferred TEs, it is now possible to investigate whether the TEs occur with the same or a different pattern as the original. Two approaches are available for this investigation:
i. Sort concordance lines according to valency complements and compare these with the TEs.
ii. Sort concordance lines according to TEs and compare the valency complements of the original and the TE.

The first option would require either a corpus annotated for valency complements or to continue working with the lines initially analysed in the previous steps. Since an annotated corpus for valency complements is not available, and continuation with the initial lines would have produced too few examples for the TEs, the second option was pursued.

Therefore, in the next step the specific TEs for the verb CONSIDER were extracted. For example, the analysis of the combined analysis of 400 lines from EuroParl and the OMC showed HALTEN as the most frequent TE of CONSIDER in general. A search in EuroParl for CONSIDER and HALTEN produced 1,730 lines. It has to be noted that the actual number of occurrences is lower, since ParaConc will look for search words on sentence level, mis-hits, as demonstrated in example sentence 14, are included in the computational search.

```
14) Two major areas of concern about the proposal were [[considered]] by the Committee.
14-G) Der Ausschuß befaßte sich mit zwei wichtigen Aspekten des Vorschlags, die er für
    problematisch [[hielt]].
```

As can be seen, CONSIDER is actually translated as BEFASSEN (single underlining), whereas HALTEN refers to 'concern’ (double underlining).

The concordance program ParaConc offers a so-called 'hot words' function, which allows for the automatic extraction of likely translation equivalents. However, the 'hot words' search function is based on word-forms and not the lemma of verbs and is therefore not a suitable
tool for the current investigation. In order to include all the word-forms a separate search for each had to be conducted. For example, the German verb HALTEN occurs in the forms 'halte', 'hälst', 'hält', 'halten', 'haltet', 'hielt', 'hieltest', 'hielt’, 'hielten', 'hieltet’ and 'gehalten'. Generally, the analysis of the German TEs seemed more demanding than for the English verbs. Apart from the conjugation, some of the verbs are 'bracketing' verbs, i.e. they are separated within certain sentence structures as shown in example sentence 15 for NACHDENKEN, or they form part of a support-verb-construction as 'in Betracht ZIEHEN' shown in example 16.

```
15) Let us consider the alternatives and ...
15-G) Denken wir über Alternativen nach und ... (Wir haben über Alternativen nachgedacht.)
16) ... , we must consider alternatives.
16-G) ... , müssen wir Alternativen in Betracht ziehen.
```

From the lines of CONSIDER with a specific TE, 50 lines, every $n$-th occurrence, were initially extracted. For example, from the 1,730 lines of CONSIDER with the TE HALTEN 50 lines were extracted and transformed in active canonical clauses without adjuncts as demonstrated in example sentence 17 (extract app III, p 340).

```
17) Our airport is very close to housing and, like 20 % of Europe's citizens, we suffer
    levels of noise from aircraft which health experts consider to be unacceptable.
```

17') Health experts consider the levels of noise from aircraft to be unacceptable

17-G) Unser Flughafen liegt ganz in der Nähe der Wohngebiete, und wie 20\% der europäischen
Bürger leiden wir unter einer Fluglärmbelastung, die Gesundheitsexperten für untragbar halten.

Transformation:
17'-G) Gesundheitsexperten halten die Fluglärmbelästigung für untragbar.

Mis-hits, i.e. occurrences where HALTEN is not the TE of CONSIDER, as in example sentence 14 above, were excluded and replaced by the concordance line above the $n$-th hit. Sometimes this also showed a mis-hit, in these cases the concordance below the n -th hit was included in the analysis.

These 50 lines were then analysed for the syntactic patterns of the original and the TE (app IV, p 342). As can be seen in figure 2.2, which shows an extract from the analysis of CONSIDER with the TE HALTEN, in this analysis the original sentence structure was used as it occurred in the corpus, and not the simple canonical sentence which was used in the previous step.


Fig. 2.2: Extract from valency comparison of CONSIDER and the TE HALTEN

The reason for returning to the original sentence is that this allows investigation into additional factors, other than valency sentence patterns, affecting meaning, i.e. translation choice, at a later point.

The question which arises at this point of the investigation is whether 50 concordance lines are sufficient to produce reliable and viable findings. For this reason, a further three sets of 50 concordance lines were analysed for the two most frequent TEs HALTEN and BETRACHTEN of CONSIDER, shown in table 2.1. As can be seen, the frequent patterns of CONSIDER for a TE are the same in all four data sets, although the rank order changes slightly between the sets. Therefore, it seems sufficient to work with 50 concordance lines, especially given that the remainder of the TEs is less frequent than HALTEN and BETRACHTEN. A similar approach was used by Sinclair (1991: 84) and Groom (2007: 96101).


Tab. 2.1: Valency pattern distribution in four samples of CONSIDER with the TEs HALTEN and BETRACHTEN

For the comparison of the valency sentence patterns of CONSIDER and its TEs only data from the EuroParl corpus was used. This decision seems to be justified since no remarkable differences could be identified between EuroParl and the OMC corpora regarding patterns and TEs. The same analysis was performed for the key TEs with the verbs BELIEVE, FEEL and THINK. The findings of the relations between the patterns of the verbs CONSIDER, BELIEVE, FEEL and THINK and the patterns of their most frequent TEs are discussed in sections 7.4 (p 242) and 7.5 (p 253).

The data for the above steps for all the verbs under investigation and their TEs can be found on the attached CD-Rom in appendix V (p 344).

It is believed that the approach taken is sufficiently reliable to identify trends regarding the interplay of local grammar and word meaning, i.e. TE. However, due to time and space restrictions in the context of doctoral research this investigation does not claim to be exhaustive, but attempts to provide an overview of the key principles in contrastive linguistic research using a corpus.

### 2.2.2 Conventions

Examples in this thesis are taken whenever possible from the corpora which were used for this investigation, and are cited in unmodified form. However, due to word-count considerations the full sentence is not always shown and missing text is indicated by three dots '...'. Examples from the corpora are in the typeface Courier New, whereas modifications and transformation are shown in Arial. In the general discussion or in order to support a statement examples from the literature are included, these are shown in the typeface Times New Roman. For each chapter the numbering of the example sentences starts with 1, the German equivalents show the nomenclature ' $G$ ', e.g. 1-G.

Throughout the assignment, lemmas are shown in CAPITAL letters and inflected forms in single quotation marks ' '. Valency sentence patterns are in triangular brackets $<>$.

### 2.3 Hypotheses for the Case Study

The main hypothesis of this investigation is that that the use and meaning of words is constrained by their local grammar, i.e. through their colligations represented as valency complements in this investigation.

Within the monolingual comparison of CONSIDER and its near-synonyms BELIEVE, FEEL and THINK it is expected that the verbs will not occur with the same valency sentence patterns, i.e. each verb has its own specific local grammar. However, it is expected that some patterns will be shared by the near-synonyms.

Furthermore, it is hypothesised that exchange of a verb with a near-synonymous verb will in general involve a syntactic change of the valency sentence pattern in order to express the same meaning. This means that replacement with a synonymous expression will not per se


#### Abstract

occur in the same syntactic environment. This, in turn, indicates that the interplay of syntactic form and meaning is a unique combination of an individual word, which cannot be transferred.


Within the bilingual English-German comparison of CONSIDER and its TEs, my hypothesis is that each valency sentence pattern of CONSIDER will have a preferred TE. This means that valency sentence patterns of a word in one language guide the choice of the equivalent expression in another language.

In addition, it is expected that the conventionally preferred equivalent meaning expressions between English and German will occur with an equivalent valency sentence pattern, i.e. the translation will, whenever possible, retain the original sentence structure.

With regard to valency theory as an analytical tool a number of hypotheses are made. These are: first, valency theory offers the most insights into the interface of local grammar and lexis and, second, it works for monolingual (even for less case oriented languages such as English) analysis of languages, as well as contrastive analysis between languages.

The hypotheses for the use of corpus investigation in contrastive studies are that parallel corpora show the current use of language and conventions in identifying equivalent expressions, i.e. TEs. They are therefore more reliable with regard to the choice of a TE than any assumptions made by researchers and particularly more reliable than the entries of many current bilingual dictionaries.

### 2.4 CoNCLUSION

I believe that overall the methodology described above is an appropriate approach into the investigation of the interrelatedness of the local grammar of words, i.e. the valency complement patterns of a word, and their meaning for most, if not all languages. However, it should be noted that in contrastive studies some parameters regarding the identification of the valency complements may have to be adapted to the languages under investigation. It cannot be assumed that the identified valency patterns for this English-German comparison are equally suitable for other languages.

The methodology is centred around the application of the analytical tools of valency theory and corpus linguistics. Although at first glance this combination may seem to be an unsuitable choice, since "corpora are designed for computers to do most of the routine work" (Sinclair 2003: xvii) and valency theory requires analysis of the active clause, i.e. transformation is often required in order to identify valency complements, I believe that this combination will result in the most comprehensive findings with regard to inter-language comparisons. The necessity for a 'manual' analysis based on a limited number of randomly chosen examples is therefore not seen as a disadvantage of the chosen approach. This is particularly so when considering that other studies, e.g. Sinclair (1991: 84) and Groom (2007: 96-101), have also shown that after a certain number of concordance lines the analysis of additional lines will not provide any new information.

## 3 CORPUS LINGUISTICS IN A MULTILINGUAL CONTEXT

### 3.1 Introduction

This chapter will look at the current practice of corpus linguistics in language investigation. Section 3.2 will look critically at the key issues in corpus linguistics, addressing the representativeness of a corpus, the use of annotation, the length or span of collocations and the use of statistics in linguistic analysis. These general issues will then be followed up by the specific use of corpora in contrastive studies, in particular their contribution to translation studies (section 3.3), the development of bilingual dictionaries (section 3.4), and in second language teaching (section 3.5). I will argue that contrastive linguistics needs to look at lexis and syntax equally in order to identify similarities and differences of usage between two or more languages. Syntax is more often than not linked to the lexical item, i.e. the local grammar of the lexical item. I will also argue that, though currently underutilized, it is within the realm of corpus linguistics to investigate the lexis-grammar interface.

Section 3.2 lays the foundations of the following chapters. It will be argued that the rise of corpus linguistics went hand-in-hand with a new focus on lexis in linguistic analysis to the disadvantage of grammar and syntax. This is not a novel point of view and has also been noted by others. For example, Granger (2009) commented at the Third Grammar \& Corpora Conference in Mannheim/Germany that in recent years there has been an increased emphasis on the study of lexical phrases and patterns, at the expense of sentence grammar, in the English language classroom. The lower importance of syntax in corpus studies is also exemplified by the following citation by Hunston (2002: 3): "Software packages process data from a corpus in three ways: showing frequency, phraseology, and collocation".

Computing technology made it possible to store and handle massive amounts of linguistic evidence, it "has become possible to base linguistic judgment on something far greater and
far more varied than any one individual's personal experience or intuitions" (British National Corpus). However, two issues arise. The first concerns the representativeness of a corpus since no corpus, irrespective of size and composition, can cover all language occurrences, i.e. a corpus will always only represent a section of language in use in total. The second issue is concerned with the fact that only information that is in the corpus can be investigated with software programs. The automatic extraction of word combinations, such as phrases and collocates, is not only the simplest, but probably also the most reliable, investigation method with a computer. For syntactic or semantic investigation the corpus needs to be annotated, that means the respective interpretative linguistic information needs to be added to the corpus (Leech 2005: 17). In order to do this, software programs need to be applied which 'identify' the units the researcher is interested in, for example word-class or function of an element in a clause, and annotate predefined categories to these. The more complex this interpretative information is, the lower the precision and the less reliable are the findings. Time consuming manual checks and corrections are therefore often needed.

However, the manual analysis of a number of randomly selected concordance lines, the method used in this investigation, also tends to favour the identification of lexical patterns and co-occurrences as they are the most easily visible. Syntactic and semantic investigations again require adding interpretative linguistic information (see section 2.2.1, p 28, for the procedure used in this research) and the analysis is not as straightforward as a lexical investigation. Additionally, the length or span of concordance lines raises issues. For a lexical investigation of phrases and collocates a shorter span of four to five words to the left and right of the word under investigation, also called 'node', is adequate, but for syntactic analysis, as for example in sentence construction and verb valency, this span is not sufficient.

Furthermore, it seems that the use of computing technology in linguistic investigation has encouraged the current trend to base any linguistic judgement on statistical data and statistical significance. The apparent underlying belief is that more information about language can be deduced from these statistics, and that a high number of occurrences justifies generalisations or claims. However, the important point, which should in my opinion always be at the forefront of a linguistic investigation, is the issue of significance versus relevance. Hunston (2002: 1), for example, notes that "corpus findings can be seductive, and it is important to be aware of possible pitfalls".

### 3.2 The Use of Corpora in Linguistic Analysis

This section is divided into three sub-sections. Section 3.2.1 provides a brief introduction into what is understood by the term 'corpus linguistics' and the issues that are generally raised in connection with corpus linguistics will be addressed. These issues could be summarised as centring around the reliability and validity of corpus findings and include questions regarding the representativeness of a corpus in general and the benefits and drawbacks of 'manipulation' of a corpus by adding syntactic or semantic information in the form of annotations. The latter issue is closely linked with the discussion about the two main investigation methods: 'computational' investigation, i.e. calculation of statistical significance, and manual investigation, i.e. interpretation of randomly chosen concordance lines.

Having discussed the main general issues of corpus linguistics, section 3.2.2 will look at the different kinds of corpora available, mainly distinguishing between the different types of monolingual and multilingual corpora. Following this, section 3.2.3 will discuss differences in the corpora used for this investigation by looking at their composition and at the occurrences of the verb CONSIDER.

### 3.2.1 Aspects of Corpus Linguistics

The development of computing has been very important in the advance of corpus linguistics. The term 'corpus linguistics' refers to the study of language on the basis of large bodies of text, collected for specific purposes in a corpus, in a 'principled way' (Johansson 1995: 19). The term 'corpus' has been in use for a long time, but has received a more specific meaning with the emergence of corpus linguistics (McCarthy and O'Keeffe 2010: 5). Whilst traditionally a corpus was understood as a collection of written works of a similar nature, e.g. a corpus of Latin poets, nowadays it refers simply to any collection of texts, written or spoken, for "the principle use of identifying what is central and typical in a language" (Sinclair 1991: 17).

Corpus linguistics itself, however, is not without debate as to its application. Whilst there appears to be general agreement that a corpus should be representative of a certain language population, this representativeness "must be regarded largely as an act of faith" (Leech 1991: 27), as no parameters for objective evaluation of a corpus are currently available (Sinclair 1991: 9). Hunston (2002: 26) comments that "a corpus is neither good nor bad in itself, but suited or not suited to a particular purpose". The criteria for the compilation and evaluation of a corpus are therefore no other than that it should be representative of a language community and suitable for the purposes of an intended investigation. Nevertheless, with the availability of ever increasing amounts of data, for example the World Wide Web as a corpus, changes in the quality and quantity of evidence of linguistic observations become apparent (Tognini Bonelli 2010: 18), making it obligatory in linguistic corpus investigation to clearly state the aims of the investigation and the reasons for the choice of corpus used for the investigation (cf. section 2.3, p 34).

While lexical patterns such as collocations and phrases are easily extractable with corpus software programs and relatively instantly identifiable in concordance lines, syntactic patterns
are less immediately recognisable since they are abstract and not directly found in texts (Tognini Bonelli 2001: 89). The text data needs to be interpreted based on the required information and categorised accordingly. Adding additional information to a corpus is called annotation (Leech 1991:12). The types of annotations are practically endless since any research specific information can be added to a corpus. Most commonly, however, corpora are annotated for part-of-speech (tagging), syntactic (parsing), semantic, pragmatic or stylistic information (Leech 2005: 18).

Corpus annotation is often criticised as the annotation categories are pre-defined. For example, Sinclair (2004: 191) notes that "one consequence of using tagged texts is that the description which produces the tags in the first place is not challenged. The corpus data can only be observed through the tags; that is to say anything the tags are not sensitive to will be missed", similarly Hunston (2002: 93) notes that "the categories used to annotate a corpus are typically determined before any corpus analysis is carried out, which in turn tends to limit, not the kind of question that can be asked, but the kind of question that usually is asked", and Tognini Bonelli (2001: 90) adds "the 'grammatical sieve' seems to leave large quantities of evidence unattended, in the generalisation a lot of information is lost". To overcome these criticisms annotation programs are often tested on a step-by-step procedure in order to establish categories that have come out of both traditional categories as well as corpus analysis (Aarts 1991, McEnery 2003).

A further problem with automatic annotation is mentioned by Mason (2008: 154) who notes that "making sure that a program works correctly is hard enough, but it is even harder to evaluate the results when it is not clear what the results should be", i.e. there are often no benchmarks for comparison. Adding to this issue is the fact that "often enough there is no agreement between several human annotators" about what the correct category should be (ibid.).

Annotations, i.e. language classification categories, are always imposed on texts or language, they are not found in the text per se, but originate from the endeavour of linguists to explain language. The annotation debate highlights, in my opinion, a key finding of corpus linguistic language investigation: dealing with large amounts of texts revealed that syntactic or grammatical categories to explain language use are much less stable and predictable than generally assumed before the advent of corpus linguistics.

The annotation debate also shows that the traditional boundaries between computational linguistics and corpus linguistics become more and more blurred. Traditionally computational linguistics was seen as being concerned with the development of algorithms and software for the processing and modelling of human languages, while corpus linguistics was understood as being concerned with the systematic study of meaning. However, nowadays it seems to be more and more the practice that corpus linguists are familiar with at least basic programming in order to investigate the language features they are interested in based on a corpus. This tendency in favour of automated investigation is, as I see it, closely linked to the trend of providing seemingly scientific quantitative and statistical information in language investigation.

Due to the medium of investigation, the computer, findings can easily be based on significance tests, although the concept of 'significance' is unclear and the usefulness of generalizations based on statistical measurements in the exploration of language is sometimes questioned within the linguistic community. McEnery and Hardie (2012: 125-127) distinguish between two schools of corpus linguistics. The first school, the neo-Firthian school, sees statistical measurements as a subordinate tool to the explorative 'hand-and-eye' or 'manual' analysis of collocation lines, and understands 'significance' as a philosophical concept. The second school relies on statistical testing as a means to extend the scale of an
analysis and as an approach to explicitly state the criteria used in an investigation, and sees ‘significance' as a mathematical / statistical concept.

The introduction of statistics into linguistic study places linguistics into the field of science, away from humanities, and is based on the assumption that language is based on laws and rules similar to mathematics or physics (Teubert 2010a: 25). The question arises as to whether language use is based on mathematical and statistical distribution, i.e. scientific facts, and can be explained with these methods. I side with those linguists (e.g. Stubbs 1995 and 2001, Sinclair 2004 or Kilgarriff 2005) who argue that possible drawbacks of statistical significance tests lie in the fact that language is not randomly distributed and that "the variety of measures which may be used to determine significance is problematic" (McEnery and Hardie 2012: 127). Even proponents of the use of statistical significance testing in language investigation have to concede these drawbacks. For example, Gries (2010: 269, 274-275) argues for more sophisticated statistics by stating that "by its very nature, corpus linguistics is a distributional discipline but observed frequencies and all statistics based on them can in fact be very misleading". Furthermore, he (ibid. p 275) notes that "there is too large a number of dispersion measures and adjusted frequencies and no agreement on which measure is best".

There is probably no 'best' method in the analysis of language, and the criteria for the choice of the investigation method should be that the chosen approach suits the research aims. I see corpus linguistics as a methodology with which language use can be observed and detected which may go unnoticed using conventional text analysis, i.e. observation of full texts. Halliday (1993: 3) points out that people have different degrees of consciousness or intuition regarding various features of language. He claims, for example, that people are less aware of grammatical choices, but in corpus analysis these features become more transparent. The introduction of frequency counts and other statistical measures into
linguistic study can help to identify lexical and syntactic usage patterns, i.e. differentiate frequent patterns from less frequent patterns, detect creative uses of language or language change, and show differences between various language communities or genres. As such, corpus linguistics is descriptive, showing tendencies of language use gathered in one or several corpora, and thus, as noted by Hunston (2002: 3), can "offer a new perspective on language".

The 'manual' corpus investigation method, looking at the data presented in a corpus via concordance lines, is used for the case study in this thesis. Concordance lines show the word or phrase under investigation, the node or key word in context (KWIC), with its lexical context (Sinclair 1991: 32, Tribble 2010: 167). The investigation span traditionally includes four to five words to the left and right of the node (Hunston 2002: 36), which is generally sufficient for the investigation of lexical co-occurrences, but for the investigation of syntactic information it is often not sufficient. Figures 3.1 and 3.2 show 22 concordance lines of the verb CONSIDER (fig. 3.1) and its German equivalent expression HALTEN [für] (fig. 3.2). As can be seen the span, six words to the left and right of the node, is insufficient to capture the whole syntactic pattern of the verbs CONSIDER and HALTEN [für] in all the concordance lines.


Fig. 3.1: Concordance lines of CONSIDER from EuroParl


Fig. 3.2: Concordance lines of HALTEN as translation of CONSIDER

For instance, for CONSIDER (fig. 3.1) the lines 4, 7 and 19 need extending to show the complete syntactic pattern. The full sentences are shown below, and reveal that the syntactic pattern is as follows: subject phrase + CONSIDER + object phrase + verb phrase with to-be + adjective phrase.
4) However, I do not [[consider]] a three-month period of employment to be sufficient to prove that an employee is resident in a Member State.
7) I [[consider]] the casting of Jörg Haider as "Europe's scapegoat", or even worse, neo-Nazi and Super Racist, to be counterproductive.
19) So, I would like to hear more about how the Commission will guarantee this uniform application in practice and whether you yourself [[consider]] the courses outlined from point one hundred onwards in the White Paper to be feasible.

Similarly, for the German translations with HALTEN [für] (fig. 3.2) only when looking at the whole sentences for lines 1, 4, 6 and 7 does it become apparent that HALTEN always includes the preposition 'für' when used as a translation of CONSIDER.

```
1-G) Wir haben eine Erhöhung des Sicherheitsgefühls der Bürger, ... , für eine zentrale Aufgabe
    bei der Wiederbelebung städtischer Gebiete [[gehalten]].
4-G) Ich [[halte]] jedoch eine Beschäftigungsdauer von drei Monaten als Nachweis dafür , daß
    ein Arbeitnehmer in einem Mitgliedstaat ansässig ist, für unzureichend.
6-G) Unter Berücksichtigung dieser Gesichtspunkte [[halte]] ich die Schaffung eines solchen
    Rahmens , wie beantragt , für sachgerecht und als Weiterentwicklung von OLAF auch für
    geboten.
7-G) Ich [[halte]] die Aufwertung des Jörg Haider als "Buhmann Europas" - schlimmer Neonazi
    und Ober-Rassist - für kontraproduktiv.
```

As a result, for syntactic analysis the sentence should be preferred as a unit of investigation, as is the practice in an investigation of the British National Corpus (BNC, available online), rather than a(n arbitrary) span of words or characters to the left and right of the node.

Despite the issues regarding the use of corpora, the positive impact of corpus linguistics on linguistic investigation is undeniable. Corpus linguistics, perceived as a methodology, allows the descriptive analysis of language use and ultimately meaning formation. It has revealed insights into how the co-occurrence of words contributes to meaning identification and has thus opened a discussion on the interrelatedness of lexis and grammar in meaning formation. Nevertheless, I find that so far the majority of corpus linguistic studies focus on lexis, i.e. phrases and collocations, rather than the exploration of the relationship between lexis and grammar.

### 3.2.2 Types of Corpora

Strictly speaking, any corpus, irrespective of its size and composition, can only be representative of a part of language in total and always represents a retrospective view. However, the larger a corpus the higher the likelihood that it offers a representative crosssection of language and a sufficient number of occurrences of the word under investigation in order to study its environment (Sinclair 1991: 18). On the other hand, specialised and smaller corpora can contribute to the discovery and exploration of differences in language use, i.e. show changes according to register or situation of language use. As shown in figure 3.3, a broad distinction is made between monolingual and multilingual corpora.


Fig. 3.3: Types of corpora

All corpora, even virtual corpora such as the word wide web, are basically of finite size, i.e. they consist of a limited number of texts or words, representing a synchronic or 'snapshot' view of language in use at a certain point in time. A general corpus consists of many different text types and genres and is generally of a considerable size. As a result they are usually less representative of particular language communities and are often used as reference corpora in comparisons with more specialized corpora (Hunston 2002: 15). Language use changes over time and in order to identify these changes a monitor corpus is needed. A monitor corpus is, as noted by Teubert and Čermáková (2007: 71) "a corpus that monitors language change. It is, in principle, regularly updated and open-ended".

For contrastive linguistic analysis of two or more languages multilingual corpora are useful. In the field of multilingual resources, two types of corpora are broadly distinguished; these are comparable corpora and parallel / translation corpora. According to Kenning (2010: 487) the key difference between the two is that comparable corpora have different sources, while translation corpora imply a common source. The prototypical comparable corpus consists of original texts in two or more languages matched by criteria such as genre, time of publication, etc. (Johansson 2007: 9; Kenning 2010: 488). Comparable corpora allow investigating similarities and differences between languages on the basis of authentic texts in each language. However, as noted by Johansson (2007: 10) the problem is "knowing what to
compare with what, i.e. relating forms which have similar meanings and functions in the languages compared". The term 'comparable corpora' is also used for corpora which consist of native texts and comparable translated texts in the same language. These corpora allow linguistic researchers to pinpoint areas of difference between translated and non-translated texts (Kenny 2005: 153).

Parallel or translation corpora consist of original texts in one language and their translations into one or several other languages, "in other words, the relationship lies in shared meaning" (Kenning 2010: 487). Parallel corpora are generally aligned either by paragraph, sentence or phrase in the different languages. The usefulness of parallel corpora in contrastive studies is not without debate. The key question is to what extent can generalisations about similarities and differences between languages be made based on translated texts? After all, it is generally accepted that there is a great degree of freedom in translations (Kenny 2005: 162). This question will be discussed in greater detail in sections 3.3 and 3.4.

### 3.2.3 Comparison of the Corpora Used for the Case Study Investigation

The corpora used for the bi-lingual English-German investigation are the translation corpora EuroParl (Speeches of the European Parliament) and OMC (Oslo Multilingual Corpus). As reference corpus for English the BoE (Bank of English) corpus is used, and for German DeReKo (Deutscher Referenz Korpus). Originally only EuroParl was used for the analysis. However, feedback on early presentations of this research at various conferences included the criticism that EuroParl is too specific a corpus to achieve reliable findings regarding the patterning of the verbs and the translations. The reference corpus BoE is included to validate the identified valency patterns in EuroParl (cf. chapter 6, p 170), the OMC is included to validate the identified TEs (cf. chapter 7, p 221). As to be expected, there are differences between the corpora but, most importantly, in both cases, syntactic patterning and TEs, the
tendencies regarding the most frequent occurrences are similar. Therefore it can be concluded that the EuroParl corpus is not as atypical as commonly assumed and therefore suitable for bi-lingual research into syntactic complementation and TEs.

EuroParl is a monitor corpus, as it is regularly updated and the languages can be extracted separately. It consists of European Parliament Proceedings published in 11 of the official languages of the European Union (www.statmt.org/europarl). These texts are aligned at sentence level, and the files contain relevant information for speaker identification, native language, day of discussion, etc. However, one disadvantage of the EuroParl corpus is that it does not identify from which language a text was translated. The EuroParl data used for this investigation covers the years 1996 to 2010. The reference corpora BoE and DeReKo include a variety of texts, from spoken to written and from newspapers to ephemera. Both reference corpora offer the possibility to choose individual sub-sections, thus enabling the users to choose the data most suitable for their research. An alternative to the BoE as reference corpus would have been the BNC, a 100,000,000 word corpus of British English. The decision to use the BoE instead is arbitrary, and simply based on me being more familiar with working with the BoE. Table 3.1 gives an overview of the sizes based on word-count of the four corpora ${ }^{6}$.

|  | EuroParl | OMC-EO | OMC-ET | BoE | DeReKo |
| :--- | :--- | ---: | ---: | ---: | ---: |
| English | $25,884,946$ | 432,500 | 320,900 | $450,000,000$ | -- |
| German | $24,077,461$ | 442,200 | 305,500 | -- | $2,400,000,000$ |

Tab. 3.1: Comparison of the sizes of EuroParl, OMC, BoE and DeReKo

As can be seen in table 3.1, the OMC is divided into two categories, depending on whether English is the original language (OMC-EO) or the translated language (OMC-ET). It is also a small corpus with 753,400 English and 747,700 German words altogether. Similar to

[^4]EuroParl, the OMC is also a specialized corpus in that it mainly consists of literary texts. Combining EuroParl and the OMC in the investigation should thus give an acceptably broad and reliable spectrum of the complementation patterns and TEs for the verbs under investigation. It has to be noted though that the majority of the data and examples stem from EuroParl since, due to its size, it produces more occurrences of the verbs under investigation (see also table 3.2).

|  | EuroParl | OMC | BoE | BoE-News |
| :--- | ---: | ---: | ---: | ---: |
| CONSIDER | 14,224 | 150 | 113,758 | 31,776 |
| per million | 549.51 | 199.10 | 253.64 | 202.41 |
| consider | 7,782 | 48 | 40,259 | 11,747 |
| per million | 300.64 | 63.71 | 89.76 | 74.83 |
| considers | 1,353 | 5 | 4,961 | 1,282 |
| per million | 52.27 | 6.64 | 11.06 | 8.17 |
| considered | 3,534 | 84 | 49,223 | 11,205 |
| per million | 136.53 | 111.49 | 109.75 | 71.37 |
| considering | 1,555 | 13 | 19,315 | 7,542 |
| per million | 60.07 | 17.26 | 43.07 | 48.04 |

Tab. 3.2: Comparison of the word-forms of CONSIDER in EuroParl, OMC and BoE

Table 3.2 shows a comparison of the frequencies of the wordforms of the lemma CONSIDER. For this comparison a subcorpus of the BoE is included, titled BoE-News, which consists of texts from the following British newspapers: The Guardian, The Economist, The Independent, The Times, The Sun and News of the World. Since the corpora are of different size, the total frequencies do not provide a meaningful comparison. It is necessary to normalize the frequencies by calculating the 'observed relative frequencies' per million words ${ }^{7}$.

As can be seen, the occurrences of the individual word-forms differ notably between the corpora. In EuroParl the verb CONSIDER is twice as frequent compared to the other corpora. In all the corpora the word-forms 'consider' and 'considered' are considerably more frequent than the word-forms 'considers' and 'considering'. Due to the genre, political speeches - the European Parliament is the forum for European politicians to share their

[^5]considerations with fellow members, it is probably not too surprising that the present tense form 'consider' is three times more frequent per million words than in the other corpora.

Looking at table 3.2 it seems obvious that the frequencies of use, given per million words, of the verb CONSIDER vary between the corpora. In order to say whether the frequencies differ significantly the chi-square ( $\chi^{2}$ ) test can be applied (Oakes 1998: 26-27), as shown in table 3.3. The critical value for chi-square for the significance level of $p<0.001$ and 9 degrees of freedom is 27.88 (Oakes 1998: 266). Since $\chi^{2}$ with 110.27 is greater than the critical value it can be stated that the distribution of the word-forms differs significantly between the four corpora. The chi-square calculation applied to just the two corpora BoE and the subcorpus BoE-News shows that there is no significant difference between the two corpora (critical value: 16.27; $\chi^{2}$ : 4.49; d.f. 3; $\mathrm{p}<0.001$ ) regarding the frequency distribution of the individual word-forms of CONSIDER.

| OBSERVED | EuroParl | OMC | BoE | BoE-News |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| consider | 300.64 | 63.71 | 89.76 | 74.83 | 528.94 |
| considers | 52.27 | 6.64 | 11.06 | 8.17 | 78.14 |
| considered | 136.53 | 111.49 | 109.75 | 71.37 | 429.14 |
| considering | 60.07 | 17.26 | 43.07 | 48.04 | 168.44 |
|  | 549.51 | 199.10 | 253.64 | 202.41 | 1204.66 |
| EXPECTED | EuroParl | OMC | BoE | BoE-News |  |
| consider | 241.28 | 87.42 | 111.37 | 88.87 | 528.94 |
| considers | 35.64 | 12.91 | 16.45 | 13.13 | 78.14 |
| considered | 195.76 | 70.93 | 90.36 | 72.11 | 429.14 |
| considering | 76.83 | 27.84 | 35.46 | 28.30 | 168.44 |
|  | 549.51 | 199.10 | 253.64 | 202.41 | 1204.66 |
| (O-E)2/E | EuroParl | OMC | BoE | BoE-News |  |
| consider | 14.60 | 6.43 | 4.19 | 2.22 | 27.45 |
| considers | 7.76 | 3.05 | 1.77 | 1.87 | 14.45 |
| considered | 17.92 | 23.20 | 4.16 | 0.01 | 45.29 |
| considering | 3.66 | 4.02 | 1.63 | 13.77 | 23.08 |
|  | 43.94 | 36.71 | 11.75 | 17.87 | 110.27 |
| $\chi^{2}=110.27 ;$ d.f. $=9 ; p<0.001$ |  |  |  |  |  |

Tab. 3.3: Chi-square and degree of freedom for the word-forms of CONSIDER in EuroParl, OMC and BoE

The distribution of the word-forms is just one feature to distinguish between the corpora. Another feature is, for example, syntactic complementation patterns for the lemma CONSIDER. Looking at the frequencies of CONSIDER followed by a that-clause and followed by a non-finite ing-clause again shows no significant difference between the corpora BoE and BoE-News (table 3.4, relative frequencies per million words shown; critical value:
10.83). On the other hand, the same calculation for all four corpora shows a significant difference between them (critical value: 16.27; $\chi^{2}: 43.38$; d.f. $3 ; p<0.001$ ).

It has to be noted that this mechanical search as performed for table 3.4 is partially flawed since not every 'that' following CONSIDER constitutes a that-clause, nor is every ing-verb following CONSIDER an ing-clause, as shown in example sentences 23 , where 'that' functions as a demonstrative pronoun, and 24, where the '-ing' clause functions as post-

| OBSERVED | BoE | BoE-News |  |
| :---: | :---: | :---: | :---: |
| CONSIDER+(-ing) | 16.91 | 18.54 | 35.45 |
| CONSIDER+that | 5.53 | 5.15 | 10.68 |
|  | 22.44 | 23.69 | 46.13 |
| EXPECTED | BoE | BoE-News |  |
| CONSIDER+(-ing) | 17.24 | 18.21 | 35.45 |
| CONSIDER+that | 5.20 | 5.48 | 10.68 |
|  | 22.44 | 23.69 | 46.13 |
| (O-E)2/E | BoE | BoE-News |  |
| CONSIDER+(-ing) | 0.0065 | 0.0062 | 0.01 |
| CONSIDER+that | 0.0216 | 0.0204 | 0.04 |
|  | 0.03 | 0.03 | 0.05 |
| $\chi 2=0.05 ;$ d.f. $=1 ; p<0.001$ |  |  |  |

Tab. 3.4: Frequencies of complementation with a that-clause and an ing-clause in BoE and BoE-News modification of the noun 'agenda'.
23) She didn't know that we consider that a sign of disrespect.
24) They had an enormous agenda to consider, ranging from the organization of military forces to the coordination of economic policies.

In general, researchers should be aware that whilst there is a place for statistics in corpus linguistics, it has to be noted that "in natural language words are not selected at random, and hence corpora are not randomly generated" (Oakes 1998: 28). For this reason any statistical significance attributed to language use based on corpora needs to be evaluated with care, and the merit of some such generalizations should be questioned (Halliday 1991: 31).

For the analysis in the case study (chapters 6, p 170, and 7, p 221) randomly chosen concordance lines are analysed. A difference in total and relative frequencies of all the investigated syntactic patterns and TEs between the two parallel and the monolingual reference corpora is assumed. As the research interest of this study is the investigation of
frequent verb complementation patterns in English and their German counterparts, differences between the corpora are of no consequence.

### 3.3 Corpora, Contrastive Linguistics and Translation

Contrastive linguistics and translation both require knowledge of two or more languages. While contrastive linguistics is concerned with the systematic comparison of languages with the aim of describing their similarities and differences in general (Johansson 2003: 31), translation is in particular concerned with the transfer of a text from one language into another and is as such an observable fact (Kenny 1998a: 50). Contrastive linguistics can draw on translation studies for language comparisons, and findings from translation studies can be valuable in contrastive linguistics research. Contrastive linguistics can be undertaken using only monolingual corpora of the languages under investigation, as well as using comparable and parallel corpora, which are also used in translation studies for language exploration. Comparable corpora are used to investigate translation effects, such as overuse and underuse of certain features in translated texts compared to original texts in this language, and parallel corpora will show specific language behaviour between languages, as well as lexical and structural equivalence relationships between languages (Kenny 1998a: 51-52; Johansson 2007: 5).

Translated texts, irrespective of whether the translation was done by a native or non-native speaker, have always been seen as being different from natural language use and are therefore excluded from general monolingual corpora (Olohan 2004: 13). The reason for this different treatment of translated texts is that, as noted by Altenberg and Granger (2002: 9), translations tend to "retain traces of the source language" and therefore do not truly represent 'natural' language in the translated texts (see also Johansson 2007: 28, Baker 2004: 7). In this sense neither EuroParl nor the OMC represent, as a whole, 'natural' English
or 'natural' German. Furthermore, both corpora can be seen as specialized corpora, the EuroParl corpus consisting of speeches of the European Parliament and the OMC consisting of literary texts. As a consequence both corpora seem to be unsuitable for making generalizations about language use.

However, the question which arises is 'What is understood to be 'natural' language use?'. Although the term 'natural language use' is frequently used in the literature, no definition of what this should exactly entail is given. As I see it, all language use is subject to a range of constraints that differ from one text production situation to another, i.e. language is only 'natural' for a given situation (Olohan 2004: 13) and there is no such thing as a 'pure' language. This is clearly exemplified in linguistics in the area of genre studies which investigate differences in language use between different genres. The consequence of accepting translations as a genre of language production renders them as viable texts for inclusion in a general monolingual corpus. In principle, it could be stated that the bigger and the more varied a corpus is, the more likely it is to represent 'natural' language occurrences and thus the more suitable to justify generalizations. However, irrespective of size and composition "generalizations from a corpus will always be extrapolations and any conclusions about language drawn from a corpus have to be treated as deductions, not as facts" (Hunston 2002: 23).

Translations require the understanding of the text by the translator. Comprehension and interpretation of texts are commonplace processes that are performed when listening to or reading a piece of information and are therefore not translation specific (Hervey et al. 1995: 7). As a result of this interpretation act, meaning of a word, phrase, sentence or text is not fixed, but largely negotiated amongst language users (Teubert 2010b: 2; Keyton 2010; Newmark 1981: 27). Conventions amongst language users on language use help to make out intended meaning, and a substantial part of linguistic research is concerned with
identifying the various factors which contribute to meaning identification within a language community. As understanding the meaning of a word or text is an interpretative act, translations are "negotiable entities" where the translators perform the negotiation (Pym 1992: 45), it is unlikely that two translators will come up with exactly the same translation. What follows is that translations are neither right nor wrong, but the observable outcome of interpreted meaning. The question which arises is 'what is compared with what' in translation, i.e. which stretches of text are translated and what do the translated stretches represent? What are the criteria for choosing a certain stretch of text as a translation unit? Are the resulting target language units equivalent to the source language unit, or do they represent one possible correspondence amongst several? The following section will address these questions.

### 3.3.1 Unit of Translation - Translation Correspondence - Translation Equivalent

One of the hypotheses (section 2.3, pp 34-35) of the case study is that there is a strong interdependency between the local grammar of words, i.e. the verb valency complementation pattern, and the choice of a TE. This implies the underlying assumption that the unit of translation is not the singular word, i.e. the TE, but the valency sentence pattern. In other words, source word and TE are individual words, whereby the choice of a TE depends on the local grammar of the source word, i.e. the translation unit or the unit of meaning. This also implies that the term 'equivalent' is actually inappropriate since there is no one 'equivalent' for a source word in another language, and it would be more appropriate to talk of translation correspondence. This section provides the background and justification for these assumptions.

It appears logical to assume that a 'unit of translation' should be the same as a 'unit of meaning' as expressed by Teubert (2004a: 174) as "a word plus all those lexical and
syntactic structures within its context that are needed to disambiguate this word, i.e. to make it monosemous". A unit of meaning is therefore not only a flexible entity regarding its size, but also a subjective entity based on the individual opinion of what constitutes monosemy. Hence, a unit of meaning, i.e. a unit of translation, could be anything from the morpheme, as the smallest unit, to the word, phrase, collocation, colligation, clause, sentence, paragraph or even the whole text as the broadest unit.

However, translations deal with two languages, i.e. two different language systems, and it would be a fallacy to assume that units of meaning are invariant across languages, i.e. that meanings are construed in the same way. Nevertheless, this is the assumed concept behind the term 'unit of translation'. Malmkjær (1998: 286), for example, defines a unit of translation as "the stretch of source text on which the translator focuses attention in order to represent it as a whole in the target language". Newmark (1988: 54) defines a unit of translation as "the minimal stretch of language that has to be translated together as one unit, i.e. it must not be translated separately". That these definitions represent the general consensus is confirmed by Kondo (2010: 13-20) who conducted an extensive literature review on the term 'unit of translation'.

Following these definitions there is a difference between units of translation and units of meaning which requires further exploration. If meaning were construed in the same way across languages, then translations would have to be reciprocal and, as a consequence, reversible. However, such an assumption can only be upheld if it is assumed that the parameters for meaning construction are the same across languages, i.e. the parameters represent language universals in the Chomskyan sense (Chomsky 1968). That this is not the case is mostly agreed upon, since, as noted by Altenberg and Granger (2002: 21), semantic concepts vary between languages due to different historical, cultural, geographical and social
developments. As a result, words and expressions between different languages are rarely completely congruent.

Translation is thus an interpretative act from one language into another, i.e. translations are subjective. This explains why translations vary from translator to translator and why a socalled 'back-translation', which represents in fact a different translation direction, will in all likelihood be different to the original. In translation, it is the translator's task to identify units of meaning in one language, i.e. the translation units, and find suitable counterparts, i.e. units of meaning, in another language. The problem facing translators is that for a chosen unit of translation there are, in theory, a vast number of possible correspondences.

Based on this discussion it seems fair to state that the terms 'unit of meaning' and 'unit of translation' are both fuzzy, and it is only safe to say that both are of variable size and subject to the judgement of the individual researcher or translator. Tognini Bonelli (1996: 199) sees a unit of meaning as contextually defined, whereas a unit of translation is defined strategically and represents "the result of explicit balancing decisions taken by the translator". As such, the two terms need to be perceived as separate but overlapping concepts, rather than as identical concepts. This is also the viewpoint taken in this thesis. As a working definition a unit of translation is defined as a sequence of words which includes all the syntactic and semantic information that is necessary to decide on a TE for a specific word in a text. It follows that a unit of translation is not the same as a TE. In other words, the translated unit, i.e. the TE, is not congruent with the unit of translation.

This is in contrast to most standard definitions of the term unit of translation (see above Malmkjær 1998 and Newmark 1988). However, the following discussion will show that my definition is a viable proposition.

Studies into units of translation are difficult to undertake as there is no certainty of what was the perceived translation unit in retrospect. For example, are the translations in example sentences 25 and 26 from the EuroParl corpus based on the word or the clause, and how can the different translation choices for the verb CONSIDER be explained?

```
25) These are tasks that the Commission considers to be essential.
25-G) Das sind die Aufgaben, die die Kommission für wesentlich hält.
26) I will, however, specify the points which we consider to be essential.
26-G) Gleichwohl weise ich auf die Punkte hin, die wir als wesentlich betrachten.
```

Since a meaning interpretation depends on the lexical and syntactic environment with which a word occurs, it is worthwhile to investigate a collocation profile for the verb CONSIDER. Looking at the collocation profiles by raw frequency ${ }^{8}$ for the node CONSIDER in the BoE and the EuroParl corpra (figures 3.4 and 3.5 ) it is notable that mainly function words occur within its vicinity.

| the | to | to | NODE | the | the | of |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| that | is | be | NODE | a | a | the |
| and | he | is | NODE | that | to | to |
| of | the | was | NODE | to | be | a |
| a | when | are | NODE | it | of | and |
| it | it | you | NODE | whether | in | in |
| is | and | not | NODE | by | for | for |
| i | have | he | NODE | for | and | be |
| he | are | and | NODE | an | it | that |
| <p | you | would | NODE | this | an | s |

Fig. 3.4: Collocation by frequencies for CONSIDER in the BoE

| the | we | to | NODE | that | the | of |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| we | the | be | NODE | the | be | to |
| that | which | we | NODE | it | to | the |
| and | to | i | NODE | to | a | be |
| is | that | not | NODE | this | it | that |
| of | should | commission | NODE | a | we | in |
| which | commission | also | NODE | in | this | is |
| this | have | are | NODE | as | in | and |
| in | i | is | NODE | how | and | a |
| it | if | and | NODE | whether | important | for |

Fig. 3.5: Collocation by frequencies for CONSIDER in EuroParl

[^6]This leads to the assumption that the meaning of CONSIDER is more likely to be defined by its syntactic complementation patterns, its colligation profile, than by its collocation profile, which is a hypothesis of this research. Verb valency patterns (discussed in chapters 4 and 5), i.e. the local grammar of verbs, and their likely influence in the choice of a TE is explored. In monolingual verb valency analysis the simple clause could be seen as the smallest unit of meaning as the sense of the verb is largely defined by its syntactic and semantic complementation pattern, i.e. its valency sentence pattern. The case study investigates whether the smallest unit of translation for verbs is also the simple clause since, as will be argued, the chosen TE for an individual verb also depends on the valency sentence pattern it occurs with.

It is now time to discuss and define the terms 'translation correspondence' and 'translation equivalent' in greater detail. As has been noted above, I distinguish between translation correspondence or equivalence and unit of translation as two interdependent, but different, concepts for meaning interpretation from one language into another.
'Equivalence', the term generally used in the literature, is seen as "a central concept in translation theory. But it is also a controversial concept" (Kenny 1998b: 77), since the term equivalence in the sense of 'sameness' is misleading in translation theory (Hervey et al. 1995: 14). Different languages do not map onto each other on a one-to-one basis, therefore, as expressed by Pym (1992: 41), "the fact that different tongues divide semantic space in different ways denies the very possibility of different elements being of equal value". As a result, equivalence between languages is asymmetrical and dependent upon the direction of translation (Johansson 2007: 27; Pym 1992: 38, 40). Probably one of the most cited examples of the asymmetry or divergent correspondence between languages is found in Saussure's (1983: 114) discussion on linguistic value, who notes "the French word 'mouton' may have the same meaning as the English word 'sheep'; but it does not have the same
value. The difference in value between 'sheep' and 'mouton' hinges on the fact that in English there is also another word 'mutton' for the meat, whereas 'mouton' in French covers both". The question to be raised is whether the lexical or syntactic environment of the word 'mouton' gives an indication of which translation to choose. In other words, whether there is a unit of translation which helps to identify the different semantic concepts of 'mouton' and thus guides the translation.

Apart from non-congruence of meanings between languages, it is also unclear what the term 'equivalence' refers to. Koller (1992: 216), for example, notes that the term equivalence itself is too broad and clarification regarding the area in which equivalence is achieved is needed. He postulates five areas of equivalence, which are denotative, connotative, pragmatic, formal and textual equivalence. Furthermore, according to Kenny (1998: 77) equivalence can also be established by rank, e.g. word, sentence or text equivalence, while Stolze (2001: 103104) discusses the quantitative relationship of equivalence between source and target expression and distinguishes between one-to-one-equivalence (a single expression in the source language is represented by a single expression in target language), one-to-manyequivalence (more than one target language expression is used to represent a single expression in the source language), nil or zero equivalence (no target language expression matches the source language expression) and one-to-part-of-one equivalence (a target language expression covers part of a concept designated by a single source language expression)

For convenience, the terms equivalence and correspondence are used interchangeably in this research. However, in the literature a distinction is sometimes drawn between the two. Correspondence is used to describe what is observable through a corpus (Johansson 2007: 5,23 ), whereas equivalence is seen as a relative and hypothetical concept which is influenced by many linguistic and cultural factors (Baker 1992: 6).

Following Toury (1995: 86) this research, which is descriptive in that it examines occurrences in a corpus, assumes that equivalence exists between the English expression and its German counterpart. The aim is, based on frequency analysis, to formulate generalizations regarding the choice of a TE amongst a number of possible alternatives. In other words, to state the likelihood that a kind of behaviour, or surface realisation, determines preferred TEs or correspondences (ibid. p 16).

### 3.4 Corpora and Bilingual Lexicography

Corpus linguistics itself cannot establish meaning, but it can aid researchers and lexicographers in attempts to justify their meaning interpretations through the analysis of concordance lines with regard to frequent occurrences of collocations or colligations. Meaning is not inherent in words as such, but requires the interpretation of language users. Teubert (2002: 195) argues that if this were not the case, "it would be possible to decide on the basis of linguistic evidence how many senses a given word has".

Because of the interpretative character of language, lexicographers are faced with the problem of identifying how many senses a word has, how many senses should be presented in a dictionary and how to distinguish between these (see table 8.4, p 289, for a comparison of different dictionary meaning identifications). In monolingual dictionaries the sense of a word is expressed as a paraphrase, while in bilingual dictionaries the TEs can be understood to represent the meaning or sense (Clear 1996: 270) of a word. However, "complete equivalence between words and expressions in different languages is rather unusual, just as it is unusual to find exact synonyms within one language" (Altenberg and Granger 2002: 21).

A dictionary is defined as a book in which words of a language are listed alphabetically, together with their meanings, or their translation equivalents in another language (Oxford

Advanced Learner's Dictionary 2005: 422; Collins Cobuild English Dictionary 1995: 454). This definition makes it apparent that the key users of dictionaries are language learners, i.e. dictionaries are a pedagogic tool. In English Language Teaching (ELT), which strongly favours the communicative approach to language teaching over the contrastive approach (for further discussion see section 3.5), monolingual dictionaries are the preferred choice. This notion, together with the commercial interests of international publishers, has led to a rapidly growing market for monolingual dictionaries for language teaching over the previous years (Cook 1998: 118). It is no surprise, therefore, that monolingual dictionaries have received most attention in linguistic research. Especially the use of corpora in the compilation of monolingual dictionaries is nowadays taken for granted and all newly published monolingual dictionaries are based on corpus data.

The key benefit of the use of corpora in lexicography is noted by Sinclair (1991: 4): "Especially in lexicography, there is a marked contrast between the data collected by computer and that collected by human readers exercising judgement on what should or should not be selected for inclusion in a dictionary". However, from the point of view of a language learner, the use of a monolingual dictionary presents some difficulties. Monolingual dictionaries do not allow direct access to TEs; in fact they may hinder understanding with their 'one-size-fits-all' approach. Definitions are given in the foreign language which often poses new language barriers to the learner, and lexical and syntactic information with regard to the differences and similarities of the specific learner's language are not considered (Kromann 1989: 58). Bilingual dictionaries, on the other hand, can show differences and similarities between languages when establishing the respective translation equivalents. Thus, bilingual dictionaries are similar to translation studies, although the given 'unit of translation' in bilingual dictionaries is generally still the single word.

Considering that "most experts now agree that dictionaries should be compiled with the users' needs foremost in mind" (Lew 2011: 1, cf. Zöfgen 1991: 2896) it seems surprising that bilingual lexicography receives comparatively little attention. Even more so, when taking into account that "current research shows that learners use dictionaries mainly to look up meanings, and generally prefer bilingual over monolingual look-ups" (Frankenberg-Garcia 2011: 97, cf. Zöfgen 1991: 2888). Generally, four main needs of dictionary users are distinguished. These needs are based on four language skills which are the productive or active skills of writing and speaking, and the receptive or passive skills of reading and listening. While the focus for the passive skills is on meaning for understanding, the focus for the active skills is on usage and syntax in order to produce native-like texts (Svensén 2009: 14). Furthermore, it is assumed that the information needed to produce a text in a foreign language is higher than the information needed to transfer a foreign text into the native language (ibid. p 473). As a result, different kinds of bilingual dictionaries would be needed to guarantee optimal information. In reality, however, these considerations are generally not taken into account since, firstly, it is difficult to gauge users' existing knowledge of a language and, secondly, for commercial reasons as the print-runs of such tailored bilingual dictionaries would be relatively low resulting in high production costs. The key point regarding user needs is that both lexical and syntactic information need to be included in learner dictionaries, as "both lexis and grammar deal with words" (Halliday et al. 1965: 22). But, as noted by Al-Kasimi (1977: 48-49), "traditionally, dictionaries provide only minimal information on grammar", thus "failing to present an integrated and adequate description of the lexicon of the language".

Syntactic information in monolingual dictionaries is often limited to the identification of wordclass, additionally verbs are shown as transitive or intransitive; extended grammatical information is generally given by means of examples or 'dead examples' (Svensén 2009: 145), such as 'consider sb/sth [as] sth', and thus presupposes knowledge of grammar
(Al-Kasimi 1977: 49). An exception is found in Collins Cobuild English Dictionary (1995), which shows syntactic patterns that contribute to the meaning of a word separately (Hunston and Francis 2000:36) ${ }^{9}$. As noted by Sinclair (1987: 114) this additional syntactic information is intended to provide a "link between the broad generalities of grammar and the individualities of particular words".

In contrastive linguistics and bilingual lexicography the syntactic patterns must be described contrastively, since there is often an isomorphism between languages, i.e. corresponding expressions are realised in different ways syntactically (Svensén 2009: 150). Based on the assumption that the main purpose of bilingual dictionaries is to advance learners' command of a foreign language (Krömer 1991: 3031), the given information needs to be comparable. As a result, in bilingual lexicography collocational and colligational information are equally important (Clear 1996: 265; Karl 1991: 2827; Pätzold 1991: 2964; Kromann 1989: 61). Zöfgen (1991: 2892), for example, notes that "meaningful improvement in the area of productive language competence is dependent on both: on a sure knowledge of the variety of uses of the words and on a confident mastery of the syntactic patterns of a language". But, as pointed out by Kromann et al. (1991: 2770), "in bilingual lexicographical practice there is no consensus on what syntactic information should be selected".

## consider [kən'sida'] VT a (= reflect upon) plan, idea, offer sich (dat) überlegen, nachdenken über ( $+a c c$ ); possibilities sich (dat) überlegen

Fig. 3.6: Excerpt of the entry for CONSIDER in Langenscheidt Collins Großes Studienwörterbuch Englisch

Figure 3.6 shows the first dictionary entry for the verb CONSIDER in Langenscheidt Collins Großes Studienwörterbuch Englisch (HarperCollins 2008). The first entry seems to be of

[^7]importance as "there is a well-documented tendency for dictionary users to select the first definition they encounter in polysemous entries, regardless of appropriacy in context" (Nesi and Hua Tan 2011: 79).

As can be seen, the given syntactic information differs between the two languages. For CONSIDER the only syntactic information given is that it is a transitive verb, i.e. that it occurs with an object, the meaning is distinguished with the paraphrase 'to reflect upon a plan / idea / offer'. The given German counterparts or equivalents are 'sich (dat) überlegen' and 'nachdenken über (acc)' implying that these are the most frequent German translation equivalents, but, as will be shown in the case study (chapter 7, p 221), this is actually not the case. The syntactic information given for the German entry shows cases, but it is rather confusing. The information regarding the dative case refers to 'sich', a reflexive pronoun that does not function as object in this construction, while the accusative case refers to an unspecified object. It could be assumed that the verb ÜBERLEGEN also takes an object in the accusative case as in example sentence 27, but this is not quite clear.

```
27-G) Wir sollten uns jedoch ... auch alle Alternativmöglichkeiten ... überlegen.
27) But we should also consider all alternative means ...
```

Example sentence 27 also demonstrates that the reflexive pronoun is dependent on the subject. It is worth looking at some more German example sentences (28 and 29) to illustrate how insufficient the given dictionary information on the use of the TEs ÜBERLEGEN and NACHDENKEN is.


As can be seen, both words take an object in the accusative case, i.e. they are transitive verbs. It can also be seen that while NACHDENKEN is a so-called bracketing-verb (Klammerverb) which is split in the sentence, this is not the case for ÜBERLEGEN. This information is not given in the dictionary although it should be clear that this information is word-specific and hence belongs in the dictionary and is not part of the general syntactic knowledge. Pätzold (1991: 2964) notes that dictionary entries rarely show the syntactic restrictions of words.

The example given above represents current practice in bilingual dictionary compilation (for further discussions on bilingual dictionary entries see also sections 7.2.1, p 223, 7.2.3, p 233, and 8.3, p 288). Hartmann (1989: 16) notes that "almost two thirds of translation problems involve dictionary consultation - a proportion which is bound to be lower among professional translators than in advanced language learners". One reason for neglecting relevant syntactic information could be that this information requires categorisation of the linguistic units, i.e. a metalanguage, which fits both languages (Clear 1996: 271). This is not always easy to establish, and, secondly, it may confront learners with new and / or unfamiliar information which may impede learning. However, this does not necessarily have to be the case. Section 8.4.1 (p 295) shows a specimen dictionary entry for the verb CONSIDER and its most frequent translation equivalents based on valency theory and corpus investigation. As will be seen, the use of corpus linguistics can help in establishing the most frequent syntactic patterns a word occurs in, show the frequent counterparts or translation equivalents for these patterns, and thus allow a comparison of the patterns of the source word and the patterns of its TEs. Utilizing the syntactic information, together with the collocational information, in bilingual lexicography can result in a strong pedagogical tool for second language learners to enhance language competence.

### 3.5 Use of Corpora and Translation in Second Language Teaching

The use of corpora in English language teaching and learning has slowly, but steadily increased over the last decades. Their applications range from materials design, syllabus design, language testing and classroom methodology (Granger 2003: 542, Römer 2008: 113). Cheng (2010: 320) notes that the "use of language corpora in language teaching and learning has been shown to contribute to the acquisition of both implicit (subconscious learning) and explicit (learning with awareness) knowledge". This means that language learners can be simultaneously active learners and language researchers.

Using a corpus linguistic approach in language analysis in general and in language teaching and learning specifically will also highlight the difficulties that are often faced by students and scholars alike when working with authentic texts where the analysis is often more varied and difficult than textbooks on general grammar usually imply (Hoey 2005: 46). Traditional grammar textbooks, even descriptive ones, are often criticised for presentation which implies that grammar can be divided into separate 'digestible’ parts. This approach often leaves students confused and frustrated as "as soon as they have learned one 'rule' they are then immediately presented with another, and another, and another" (Lewis 2002: 13). Furthermore, traditional grammar teaching is often not sufficient in explaining authentic sentences, which do not fit the 'rules'; these are then described as exceptions, and are usually explained as being 'lexical'. As a result, a measure for the evaluation of grammatical theories ought to be how well the proposed analytical frameworks or methods account for the grammar-lexis interface in language, ideally limiting the number of exceptions to zero (Beedham 2005: 12). In order to achieve this, useful grammatical frameworks should be as comprehensive as possible from the very outset.


#### Abstract

"A common current belief in teaching English as a second language is that students' attention should be focused on meaning and communication rather than on form, as this will


stimulate the subconscious acquisition of the language system" (Cook 1998: 119). The focus is therefore placed on learning lexical chunks and collocations, in order to enable the learner to participate in discourse activities quickly. Along with this goes the belief that a new language should be taught without reference to the student's first language (ibid. p 117). However, the communicative method as it is mainly practised today raises two issues. Firstly, second language learning does not happen independently from the first language of the learner, and secondly, as noted by Halliday (1985: xvii) "without a theory of wording - that is a grammar - there is no way of making explicit one's interpretation of the meaning of the text".

That second language learning differs from first language learning is generally acknowledged, for example Lightbown and Spada (1999: 45) note that "there is little doubt that a learner's first language influences the acquisition of a second language", similarly Nunan (1999: 40) writes: "There is sufficient evidence to suggest that first and second language learning are fundamentally different". However, the resulting need to include contrastive methods in second language teaching is mainly ignored in the language classroom. Nonetheless, if it is accepted that the individual learner will always relate a new language to previous knowledge of language, mainly the native language, then, as a result, it appears to be important to provide learners with methods and tools that are suitable for interlanguage comparisons.

In the 1940s and 1950s it was believed that contrastive analysis, the systematic comparison of two languages, could predict and explain difficulties of second language learners. However, when it became apparent that the act of language learning differs from language study contrastive analysis was again dismissed as a method in second language teaching and learning (Hoey and Houghton 1998: 47, Altenberg and Granger 2002: 5-6, Johansson 2007: 2). Similarly, the use of translation is rejected nowadays in the language classroom.

This is partly due to its close connotations to the grammar-translation method which is "criticized for ignoring spoken language, encouraging false notions of equivalence and presenting isolated sentences rather than connected texts" (Cook 1998: 117). However, the contrastive methods require conscious knowledge of two language systems and thus encourage a different kind of learning than the communicative method (Teubert 2004a: 171). Furthermore, it is often argued that the contrastive method is less suitable for multilingual classes which are often common in teaching English as a second language (Hunston 2002: 184). Nonetheless, as I see it, language teachers should be sensitive to the fact that learners already have experience with a language and therefore introduce methods and theories to learners which will enable and encourage them to explore the differences and similarities between languages on their own accord. One such tool are parallel corpora. Kenning (2010: 495) notes that parallel corpora can act as "a stimulus and a resource for autonomous language learning". For example, exploring the range of possible translations, both ways from first to second language and vice versa, will sensitise students and raise their awareness to the way in which different languages encode equivalent meanings lexically and syntactically (Römer 2008: 120, Kenning 2010: 496).

Once it is recognized that second language acquisition differs from first language acquisition, plus the fact that learners have different learning preferences, syllabus design will consequently be based on both methods, the communicative and the contrastive method. Furthermore, it will include tools which encourage both subconscious and conscious learning.

### 3.6 Conclusion

This chapter has highlighted the contributions that corpus linguistics, one of the chosen methods for the case study analysis of this thesis, can make in a multilingual context. While
corpus linguistics had a positive impact on monolingual language investigation, it seems safe to say that it is still underutilized in contrastive linguistics. This may be due to the fact that monolingual corpora are widely available, e.g. the world wide web as corpus, while parallel and comparable corpora are not as easily available and are often still classified as specialised corpora.

Corpus linguistics has provided new insights into how lexical patterning contributes to meaning identification in monolingual studies, and monolingual lexicology benefitted the most. However, it has also been argued that the aim of a lexical-grammatical description of a language has not been fully achieved, and that syntactic information is still largely neglected in the discussion of lexis. This may be due to the fact that lexis can be relatively easily investigated with a computer, while investigations into the syntax of a language requires appropriate categorisation and is therefore more complicated to undertake.

It has been argued that in contrastive linguistics the interplay of syntax and choice of a TE is of particular importance, as exemplified by Weinreich's (1964: 407) criticism of bilingual dictionaries, who noted that "the failure to distinguish between the essential and the optional, together with the neglect to specify the prohibited, deprives the dictionary of any generative power". This means that in inter-language studies the contrastive aspect between different languages with regard to the interplay of lexis and syntax should be a key concern.

The case study analysis (chapters 6 and 7) will exemplify how corpus linguistics using bilingual corpora can be applied in identifying lexical and syntactic patterns in one language, and how these correspond in another language, thus identifying similarities and differences between the languages.

## 4 ASPECTS OF VALENCY COMPLEMENT CATEGORISATION

### 4.1 INTRODUCTION

Valency theory is concerned with the property of words to combine or demand a certain number of elements, the complements, in forming larger units such as phrases and clauses (Emons 1974: 34). This thesis is concerned with verb valency which investigates clauses, i.e. sentences, and their constituents, i.e. sentence elements (Satzglieder). There are two main discussions around valency theory. The first relates to the question of whether valency complements should be classified based on their syntactic, semantic or communicative necessity (Helbig and Schenkel 1975: 31). This issue will be addressed in this chapter. The second discussion revolves around the distinction between complements, i.e. sentence elements which belong to the local grammar of a verb, and adjuncts, i.e. sentence elements which are not part of the local grammar of a verb as they can be added to (almost) any sentence. As this is mainly a syntactic issue, it will be discussed in greater detail in chapter 5 .

Syntactic and semantic interpretations of language are abstract theoretical constructs, i.e. the parameters and definitions cannot be found in the language but are based on the beliefs of the researcher (v. Polenz 2008: 2, Teubert 2003: 824). For this reason, different theories and methods about language composition have developed. In valency theory the belief is that no generalisations can be made regarding the congruence of syntactic and semantic properties of words - these relationships are based on the local grammar, i.e. the individual properties of words, i.e. their use. Therefore, the remit of valency theory is to provide an account of the local grammar of words, focusing on those features for which general grammar cannot account.

Three levels of language analysis are generally distinguished. The lowest level is concerned with syntactic forms such as word-class, word order position or syntactic case. At this level
the categorisation of complements is relatively straightforward as the distinctions are often marked by the morphological features of a word, as for example case markings for nouns or adjectives. The second level is concerned with the syntactic functions of complements such as subject or object. At this level interpretation of the function of the word-classes and cases is required. The third level is concerned with semantic disambiguation of sentence elements, e.g. semantic roles and semantic relationships. At this level the categorisation of complements is largely based on the interpretation of the researcher and the categories are therefore more arbitrary than in the previous levels.

It will be argued that valency theory is a versatile concept to investigate language from all three angles. Therefore, this chapter aims to provide an overview of some of the main categorisation classes of valency complements. The following categorisation types, including their strengths and weaknesses, will be discussed:

- word-class, e.g. noun, adjective, preposition, etc. (section 4.2)
- syntactic function, e.g. subject, object (section 4.3)
- syntactic case, e.g. nominative, accusative, dative, genitive (section 4.4)
- semantic restrictions / features, e.g. human, animate, etc. (section 4.5)
- semantic roles, e.g. agent, patient, beneficiary (section 4.6).

It will be shown that elements of these valency categorisation classes can also be found in some influential grammatical theories of the $20^{\text {th }}$ century, such as frame semantics and case grammar by Fillmore (1968, 1977), systemic functional grammar by Halliday (1985) and construction grammar by Goldberg (1995). Despite some similarities between the grammatical theories discussed, it should be noted that they often draw on, though sometimes only subtly, different assumptions and interpretations regarding the interdependency of the categorisation types.

Furthermore, the following discussion will show that looking at the different categorisation classes and investigation levels separately is often impossible as their definitions are partly interdependent. Yet, assuming a one-to-one relationship between them seems equally fallacious. The language levels and categorisation types complement each other, each adding different insights into language analysis (Schumacher et al. 2004: 21).

Tesnière (1980) himself is vague regarding the level on which valency complements should be analysed, and his definitions reveal the difficulty of categorising and describing valency complements. On the one hand he notes (ibid. p 49) that structure and function are interdependent in the sense that syntactic structure is determined by the syntactic function of the sentence elements. On the other hand he calls valency complements 'actants' and describes these semantically (ibid. p 100): the first 'actant' is the doer of an action, i.e. the subject, the second 'actant' is the recipient of the action, i.e. the direct object, and the third 'actant' is the beneficiary of the action, i.e. the indirect object.

There seems to be no right or wrong answer, as it will always be debatable, as noted by Fischer (1997: 51), whether syntax influences semantics or vice versa, and, secondly, to what extent they are capable of independent analysis. The following discussion focuses on the issues involved with regard to inter-language comparisons in contrastive studies.

### 4.2 Categorisation by Word-Class

A categorisation of valency complements by word-class or part-of-speech distinguishes the sentence elements by noun phrase (NP), adjective phrase (AdjP), prepositional phrase (PP), etc. as shown in example sentence 1 below:


The pattern 'NP + NP + 'for' PP' mainly occurs in EuroParl in a passive structure, and the German counterpart occurs with the equivalent pattern 'NP + NP + bei/für PP'. This categorisation approach does not show the function of the various sentence elements unless, as noted by Allerton (1982: 4), "the class of a sentence element together with its structural position uniquely determines its function". For that reason this approach works better for languages with a relatively fixed word order such as English, where morphology and inflection are almost gone and are replaced by a quite rigorous word order in sentence construction (Teubert 2007: 225). Therefore it is not surprising that approaches based on categorisation by word-class are found in English, for example the Valency Dictionary of English (2004), FrameNet, an online lexical database of English, or the pattern grammar approach by Hunston and Francis (2000). However, even for languages with a rigorous word order, the assumption that word-class and structural position establish the functional relationship of sentence elements causes difficulties as shown in example 2.

```
2) It may be considered for future years.
Active:
\begin{tabular}{llcll} 
2a-E) & We & may consider & it & for future years. \\
& Noun PhRASE & + & NOUN PHRASE + & 'FOR' PREPOSItIONAL PhRASE
\end{tabular}
Active:
\begin{tabular}{llclll} 
2a-G) & Wir & können & das & für die kommenden Jahre & berücksichtigen. \\
& NOUN PHRASE & + & NOUN PHRASE + & 'FÜR' PREPOSITIONAL PHRASE &
\end{tabular}
```

In example sentence 2 the prepositional phrase 'for + Noun Phrase' has, although in the same structural position, a different function than in sentence 1. Whereas the function of the prepositional phrase in 1 is that of a valency complement of the verb CONSIDER indicating an intention, its function in 2 is that of an adjunct of time, i.e. an adverbial phrase since the whole phrase introduced by the preposition 'for' can be replaced by a number of alternative time references, for example 'immediately', 'within the next two years', or 'in the future'. This also applies to the German translation, e.g. 'sofort', innerhalb der nächsten zwei Jahre', oder ‘zukünftig’ (see also Allerton 1982: 7).

Yet another reading of the word-class categorisation pattern 'NP + NP + for PP' is shown in sentence 3. The prepositional phrase functions here as a post-modifier of the noun 'ban' since replacement with the anaphor 'it' of the whole noun phrase following the verb is possible (3a):
3) The Commission considers [a proposal for a ban on investment].

Anaphorisation:
3a) The Commission considers [it].

3-G) Die Kommission ist jetzt bereit, [einen Vorschlag für einen Investitionsstop] zu
erwägen.
Anaphorisation:
3a-G) Die Kommission ist jetzt bereit, [es] zu erwägen.

The above examples show that the same instances of a sequence based on word-class categories may require different syntactic and functional readings. The demonstrated syntactic ambiguity of surface structures makes automatic processing of pattern recognition by word-class difficult (Mason and Hunston 2004). In valency analysis, for example, the prepositional phrase in sentence 1 represents a prepositional complement, i.e. it is syntactically required; in 2 the prepositional phrase represents an adjunct, i.e. it is an adverbial of time which is syntactically not required by the verb; and in sentence 3 the
prepositional phrase forms part of the valency of the noun 'proposal' and is part of the object complement.

Furthermore, categorisation of sentence elements based on word order and word-class is less suitable for contrastive studies as, as mentioned above, it is not equally suitable for all languages, and secondly, this method is less likely to show syntactic differences between languages.

```
4) I know the particular problems in your constituency.
    Noun Phrase + Noun Phrase
4-G) Mir sind die speziellen Probleme in Ihrem Wahlkreis bekannt.
    Noun Phrase (dative) + Noun Phrase (nominative)
Transformation:
\begin{tabular}{|c|c|c|c|c|c|}
\hline 4a-G) & Die speziellen Probleme & in Ihrem Wahlkreis & sind & mir & \\
\hline & Noun Phrase (nominative) & + & & Nou & \\
\hline
\end{tabular}
```

For example, in sentence 4 and its German equivalent the English and German sentence structure both include two noun phrases, but while in the English sentence the noun phrase preceding the verb functions as subject, this is not the case in German, where the preceding noun phrase is a dative. The support-verb-construction 'bekannt SEIN' with the meaning 'to be aware of something' or 'to know something' occurs with a nominative and a dative complement. Due to the flexible word order in German, the dative complement can occur in subject position (4-G) or in object position (4a-G). Such a change in word-order is not possible in English. Other examples where categorisation by word-class is insufficient for a proper comparison between German and English are German sentences with two objects. For example, in $5-\mathrm{G}$ there is dative and the accusative object, while in $6-\mathrm{G}$ the two objects are in the accusative case.

```
5-G) Ich möchte Ihnen die vorrangigen Ziele unserer Strategie vorstellen.
    Noun Phrase + Noun Phrase + Noun Phrase
    (NOMINATIVE) (DATIVE) (ACCUSATIVE)
    I would like to present the broad objectives of our strategy to the Commission.
    Noun Phrase + Noun Phrase + to-Prepositional Phrase
```

```
6-G) Das System kostet den einzelnen Bauern viel Zeit und Arbeit.
Noun Phrase + Noun Phrase + Noun Phrase
(NOMINATIVE) (ACCUSATIVE) (ACCUSATIVE)
6)
The support system uses up the farmer's time and resources.
Noun Phrase + Noun Phrase
```

The above discussion has shown that categorisation by word-class and word order is less suitable for contrastive studies of English and German as the syntactic differences between the languages do not become apparent.

### 4.3 Categorisation by Syntactic Function

A categorisation of valency complements by syntactic function for sentence analysis concerns the distinction between subjects and objects as shown in example sentence 7 .

```
7) ECHO is considering the adoption of a further relief programme for the victims ...
    Subject Object
7-G) ECHO erwägt die Annahme eines weiteren Hilfsprogramms für die Erdbebenopfer.
    Subject Object
```

Although Matthews (2007: 104) argues that "a subject is among the easiest units to establish" in a clause, looking at the literature this does not seem to be the case as most definitions combine syntactic, semantic, logical and structural (positional) parameters. For example, according to Tesnière (1980: 100) the terms 'subject' and 'object' are semantically defined by defining them as 'actants'. In contrast, Engel (1988: 191) claims that the term 'subject' has to be seen solely as a feature of the syntax, and is thus a grammatical term. This ambiguity about the parameters also applies, though to a lesser extent, to the term 'object'.

In this section I will argue, following Engel (1988), that the terms 'subject' and 'object' represent syntactic functions, on which different semantic functions or roles can be mapped.

This means that syntactic and semantic functions constitute separate levels of language analysis, which are interdependent but not congruent. My main criticism of many definitions and theories is that they mix the different levels of language analysis which can lead to confusion and result in incorrect conclusions (see also Beedham 2005: 12). Exemplarily I will focus on a discussion of the term 'subject'. First I will address Chomsky's claim that syntactic structures cannot explain meaning (section 4.3.1). Then I will compare a syntactic analysis based on Halliday's systemic functional grammar approach with one based on valency theory (section 4.3.2). The contrastive aspect will be given particular attention.

### 4.3.1 Grammatical, Psychological and Logical Subjects

Traditionally three different functions are assigned to subjects and prototypically the subject coincides with these three functions (Halliday 1994: 30-33):

- 'that which is the concern of the message' = psychological subject
- 'that of which is predicated' = grammatical subject and
- 'doer of action’ = logical subject.

However, as correctly identified by Chomsky (in Lamprecht 1973: 23), the subject can take a number of different semantic roles. In 8a John' is the 'doer' and in 8 b he is the 'receiver'.

| 8a) John is eager to please. | JOHN <br> I GRAMMATICAL SUBJECT <br> JOHN |
| :--- | :--- |
| 8a-G) DOER OF ACTION 'TO PLEASE' = LOGICAL SUBJECT |  |

According to Chomsky the above sentences demonstrate that syntactic surface structures are inadequate to explain meaning. I will argue that this conclusion is incorrect, since the analysis of 'John' as 'logical subject' in 8a, and as 'logical object' in 8b is a semantic and not a syntactic distinction. I will also show that the difference in meaning between the two sentences can be derived from the analysis of the syntactic structures, as already indicated in the German translation, where for 8a-G an object ('andere') is required, whereas 8 b does not.

The key for the analysis is to note that 8a and 8b are complex clauses where BE (SEIN) is the verb of the main clause and PLEASE (ERFREUEN) the verb of the sub-clause. BE is a copular verb, a sub-class of verbs, and associates an attribute with the subject, i.e. it classifies the subject (Biber et al. 2002: 140; Engel 1988: 197). In valency theory copular verbs can only occur with a subject complement ${ }^{10}$ and a predicative complement which is either a noun phrase (nominal complement) or an adjective phrase (adjectival complement), as shown in figure 4.1.


Fig. 4.1: Valency stemma BE (complex sentence)

Based on this analysis, 'John', the subject, has the same 'syntactic role' in both statements in that something is attributed to him. As the valency stemmata (figure 4.1) show 'John' is classified as 'eager' in 8a and as 'easy' in 8b, both have the same valency sentence pattern <sub adj>.

[^8]In order to investigate whether there is a syntactic explanation for the difference in meaning between the two sentences, the verb in the sub-clause needs to be investigated. For this the subject and possibly the object of PLEASE need to be retrieved, as shown below:

| 8a-i) | $(?)^{9}$ John (eagerly) pleases everyone / his uncle / the new boss. |
| :--- | :--- |
| 8a-ii) PASSIVE: | Everyone is (eagerly) pleased by John. |
| 8a-i-G) | John erfreut andere / seinen Onkel / seinen neuen Vorgesetzten. |
| 8 b-i) | $(?)^{9}$ Everyone / his uncle / his new boss (easily) pleases John. |
| 8 b-ii) PASSIVE: | John is (easily) pleased by everyone. |
| 8b-i-G) | Jeder / sein Onkel / sein neuer Vorgesetzter erfreut John. |

Admittedly, neither the English nor the German transformations are very elegant. However, it is notable that the transformations of the to-inf clauses into finite clauses show different subjects and objects (8a-i and 8b-i), which also results in different passive structures (8a-ii and 8 b -ii). It now becomes clear that the different readings or meanings for the English sentences 8a and 8b derive from the different properties of the predicative adjectives 'eager' and 'easy' or their respective adverbs. Without the adverbs the sentences would be ambiguous, as shown in 8a-iii and 8b-iii:

8a-iii) John pleases everyone.
8b-iii) Everyone pleases John.

Based on the above discussion, there are two alternatives to explaining the meaning differences between 8 a and 8 b syntactically. The first states that the difference lies within the valency properties of the adjectives; while 'eager' can occur with an object complement, 'easy' never does. The second suggestion takes this a step further and proposes analysis as multi-word verbs, i.e. as support-verb-constructions, 'BE eager’ (8a-iv) and 'BE easy' (8b-iv) respectively. As shown in example sentences 9 to 11 and 12 to 14 such an analysis is also suitable when the sub-clause is headed by other verbs.

[^9]BE EAGER <sub vrb-to-inf (obi)>

```
8a-iv) John is eager to please (his boss).
    9) We are eager to reduce costs.
10) A whole list of countries are interested and eager to join (Europe).
11) We have already seen how civil society is eager to participate (in this debate).
BE EASY <sub vrb-to-inf>
8b-iv) John is easy to please.
12) They have been told that these people are easy to recognise!
13) The Commission's proposal strikes a balance - which was not easy to achieve.
14) The other issues are relatively easy to resolve.
```

This analysis as support-verb-constructions clearly expresses the difference in meaning also in the surface structure. However, whilst this analysis may make it easier to understand the differences in the sentence patterns and meaning, such an analysis increases the number of verbs in the lexicon. Engel (2009: 149) points out that it should not be the task of grammarians to increase the number of dictionary entries artificially. Nevertheless, I personally would opt for this approach as it not only clearly shows the relationship between the sentence elements, but also allows in the contrastive analysis of English and German a direct comparison between the two languages.

8a) John is eager to please. <sub vrb-to-inf (obj)>
8a-G) John ist begierig andere zu erfreuen. <sub obj vrb-zu-inf>
8b) John is easy to please. <sub vrb-to-inf>
8b-G) John ist leicht zu erfreuen. <sub vrb-zu-inf>

As can be seen, while with 'BE eager' the realisation of the object depends on the verb in the verbal complement (e.g. in example 9 it is obligatory, while in the other examples it is facultative, i.e. it is not required but may occur). In contrast, in the German equivalent with 'begierig SEIN' the object is always required. For 'BE easy' and its German counterpart the English and the German sentence structures are identical.

The discussion should have highlighted that a distinction between grammatical, logical and psychological subjects and objects is inaccurate as they relate to different levels of sentence
analysis. The term 'subject' should be reserved for syntactic analysis, and, as noted by Huddleston and Pullum (2002: 239) its uniqueness in a clause is one of the defining properties for subjects. Any structural analysis should therefore first identify whether a single or a complex clause is investigated. This is done by looking at the verb phrase(s) in a sentence.

### 4.3.2 Syntactic Aspects in Systemic Functional Grammar

Systemic Functional Grammar (Halliday 1994, Halliday and Matthiessen 2004) is based on constituency grammar, i.e. the binary division of sentences into subject and predicate (cf. section 5.2.3, p 134). Although similar in their function, in systemic functional grammar (SFG) these two sentence elements are called 'Subject' and 'Complement', two terms which also play an important role in valency theory. However, as will be shown, their understanding is in both theories fundamentally different, and I will argue that their definition is based on semantic parameters in SFG, which, in turn, causes problems in contrastive language investigations.

Although the 'Subject' in SFG seemingly represents the grammatical subject of traditional grammar, its function is based on a semantic and not a syntactic definition (Smirnova and Mortelmans 2010: 86). According to Halliday (1994: 76), the 'Subject' forms the main element of a proposition which can be affirmed or denied. Therefore, interrogative tags are seen as a suitable method for the identification of subjects (Halliday 1994: 73, Huddleston and Pullum 2002: 238). However, this is in my opinion a semantic definition and raises two issues. First, identification of subjects through interrogative tags is not a suitable method for all languages. For example, German does not have similar tags. Second, with marked word order the identification of the subject using interrogative tags will be ambiguous, as
demonstrated in sentence 15, which is taken from Halliday (1994: 31). Both, version 15-i and 15-ii, seem equally (im)plausible and (un)acceptable.
15) This teapot my aunt was given by the duke.

Analogue the first passive: 15-i) ?This teapot my aunt was given by the duke, wasn't she?
Analogue the second passive: 15 -ii) ?This teapot my aunt was given by the duke, wasn't it?

Similarly, Halliday (1994: 44) uses the term 'Complement' for any nominal element in the clause that could potentially become the 'Subject', in traditional terms these are the direct and indirect object (Thompson 1996: 51). This definition not only results in an arbitrary analysis of German sentences, where the sentence elements are morphologically marked for case, but also contradicts traditional German analysis where the subject has to be in the nominative case and the indirect object in the dative ( $15-\mathrm{i}-\mathrm{G}$ ) therefore cannot become the subject of a passive sentence (15-ii-G).

| 15-i-G) ACTIVE | Der Duke | gab | meiner Tante | diese Teekanne. |
| :---: | :---: | :---: | :---: | :---: |
| Functional $G$. | Subject |  | Complement | Complement |
| Valency G. | Subject Complement |  | Indirect Object Complement (dative) | Direct Object Complement (accusative) |
| 15-ii-G) PASSIVE | Meiner Tante | wurde | diese Teekanne | vom Duke gegeben. |
| Functional G. | Subject |  | Complement | Complement |
| Valency G. | Dative Complement |  | Direct Object Complement (accusative) | Prepositional Complement |

The comparison between SFG and valency grammar shows that SFG represses syntactic information on German sentence structure. In example 15-i-G the classification as 'Complement' of both the indirect and the direct object does not accommodate the morphological case marking in German, and in 15-ii-G the analysis of 'meiner Tante' as subject contradicts the standard definition that subjects are always in the nominative case. A distinction between the different types and functions of 'Complements' in SFG happens only on the semantic level, where different semantic roles are attributed to them (see also section 4.6, p 92 ).

A general note on the use of the term 'complement' is necessary here. In grammatology the term 'complement' is highly ambiguous as it has a multitude of meanings based on various grammatical theories. In the traditional sense, the term 'complement' relates to link verbs or copulas, and its function corresponds to the 'object' of action verbs (Quirk et al. 1985: 54-55; Sinclair 2005: 173). In valency theory the term 'complement' represents a general meaning, referring to any elements that are required by the regent to form a grammatically (and semantically) correct phrase or clause. In SFG, as mentioned above, the term 'complement' is used for sentence elements that potentially could become the subject. Examples 16 and 17 show a contrastive analysis based on these three definitions.


As can be seen in the comparison of 16 and $16-\mathrm{G}$, SFG is not able to show the syntactic differences in sentence structure between the English and German sentence equivalents. While the verb FACE occurs with a subject and an object complement, the chosen translation with the verb BEVORSTEHEN occurs with a subject complement and a dative complement. In addition, the subject complement occurs in this example after the verb, which is the preferred sequence when the dative complement is animate and the subject complement is inanimate (Duden 2009: 870, 927). In 17 and 17-G the SFG approach does not indicate that the syntactic structure is the same in both languages, the verbs $B E$ and SEIN both take a subject complement and a nominal complement (nominative case).

It becomes apparent that the SFG term 'Complement' can either express an object complement in the accusative case, an indirect object complement in the dative case, or a nominal complement in the nominative case. It is probably on the basis of issues such as these that SFG is often criticised as being too oriented towards the English language.

A final point which should be briefly addressed is that position is often suggested as a parameter for the identification of subjects in English (Huddleston and Pullum 2002: 238). Taking position into account, a case could be made for the identification of the dative complement in $16-\mathrm{G}$ as subject. However, the problem remains that functional grammar is not able to deal with the case markings in German. And while English, as noted by Jespersen (1933: 99), "has developed a tolerably fixed word order which in the great majority of cases shows without fail what is the subject of the sentence", this does not apply to German, where sentence structure is much more flexible than in English and the subject can come after the verb as seen in $16-\mathrm{G}$. In a German declarative clause only the verb phrase is fixed in second position (Lamprecht 1973: 29).

In summary, it can be stated that in contrastive studies the parameters for syntactic (and semantic) categorisations of sentence elements need to be equally suitable for all the languages under investigation. Furthermore, it has been argued that the terms 'subject' and 'object' should be reserved to express syntactic functions of sentence elements, and should therefore be explained with syntactic parameters.

### 4.4 Categorisation by Syntactic Case

Case, in the grammatical sense, is based on morphological changes to a noun to indicate its syntactic function in a sentence. The definitions of syntactic cases are based on Latin, which is a highly inflected language. The inflections in Latin allow for a large degree of flexibility in choosing word order. In a way it could be argued that the case declensions of a noun also change its meaning (Oulton 1999: 16). However, it is important to note that these meaning changes are not expressing a semantically unitary meaning, i.e. a semantic role, but that the relationship between syntactic form and semantic meaning is based on multiple interconnections (Fischer 1997: 13), which will be discussed in more detail in section 4.6.

In German four cases are distinguished, these are the nominative, the accusative, the dative and the genitive case. Each of the four cases in German can represent a limited number of syntactic functions. Predominantly the nominative indicates the subject, the accusative the direct object, and the dative the indirect object. However, this is not always the case. For example, the nominative case can also function as predicative complement (nominal complement) of copular verbs (18), some German verbs may occur with two objects in the accusative case (19), or the dative case may function as direct object of a divalent verb (20).

```
18-G) Wettbewerb ist ein Instrument und führt nicht immer zu optimalen Lösungen.
19-G) All diese Epidemien haben den europäischen Haushalt Milliarden gekostet.
20-G) Wir haben ihm geglaubt.
```

Syntactic cases in German can thus take a number of functions (Duden 2009: 807-809). It is therefore incorrect to use the terms 'subject-case' or 'subjective form' for the nominative case and 'object-case' or 'objective form' for the accusative case as suggested by Quirk et al. (1985: 337, 725). It should be noted that determining function (and meaning) in a sentence is more complex than substituting simple formulae. Section 4.6 (p 92) will show that the cases can represent a number of semantic roles.

This is not how English works, where word order and prepositions are used to indicate the syntactic function of a sentence element. Nevertheless, despite the lack of morphological markings, case functions can to some extent also be identified for English (see section 4.4.1 below). Differences in the realisation of sentence elements and their function occur between English and German often due to case markings, as shown in example 21.

21-G) Mir erscheint der momentane Sanktionsmechanismus überzogen und falsch.
21) I think the current sanction mechanism is excessive and wrong.

The German verb ERSCHEINEN can occur with the subject (nominative case) 'der momentane Sanktionsmechanismus' after the verb, a dative complement 'mir' before the verb, and a predicative complement 'überzogen und falsch'. Such a constellation is not possible in English, and a structure with a sub-ordinate that-clause is often chosen in English. The German dative complement occurs as subject complement ' 1 ' in the English sentence, while the German subject complement forms the subject of the that-clause. Alternatively, as shown in example 22, the German subject ('dieses Dekret') can be retained in English ('this decree'), and a prepositional complement ('to me') is used in English for the German dative ('mir').

```
22-G) Mir erscheint dieses Dekret besonders wichtig.
22) This decree seems particularly important to me.
```

When deciding on valency complement categories for a contrastive comparison of two languages it is important that the categories are suitable for both languages and are able to show structural differences between the languages. Despite the lack of morphological marking for case, the following section will show that complement categorisation by syntactic case can, to some extent, also be applied in English sentence analysis.

### 4.4.1 Syntactic Case in English

By applying the commutation test, replacement of sentence elements with a personal pronoun (cf. section 5.3.1.2, p 143), or the question test (cf. section 5.3.1.4, p 152) it is possible to distinguish cases and their syntactic function in English. To demonstrate possible benefits of this approach, I will return to Halliday's (1994:31) marked example sentence 15.

| 15) | This teapot | my aunt | was given | by the duke. |
| :--- | :--- | :--- | :--- | :--- |
| Anaphors: | It | she | was given | by him. |
| Case: | Nominative or | Nominative |  | Accusative or |
| Question: | Who or What? | Who or What? |  | Dative? |
| Accusative? |  | By Whom? |  |  |

This analysis shows that 'my aunt / she' is in the nominative case, 'the duke / him' in the dative case. One ambiguity occurs in 'this teapot / it' which could be either nominative or accusative case. Since the subject is unique, 'this teapot' has to be in the accusative case, as the pronoun 'she' clearly marks 'my aunt' as the nominative and therefore the subject. The sentence analysis is:

| 15) | This teapot | my aunt | was given | by the duke. |
| :---: | :--- | :--- | :--- | :--- |
| Function: | ObJECT COMPLEMENT | SUBJECT |  | PREPOSITIONAL COMPLEMENT |
|  | (Direct object) |  |  |  |

It is notable that the position of the direct object is marked, i.e. preposed. The 'prototypical' passive structure is "My aunt was given this teapot by the duke". Although passive structures
are usually not analysed separately in valency grammar since passivisation does not change the number of valency complements of a verb, the transformation is indicated in the structural description (figure 4.2). The arrows indicate the transformational process from a dative complement in the active form to a subject complement in the passive form, and from the subject complement in the active form to a prepositional phrase in the passive form.


Fig. 4.2: Structural description of passive structures in valency

In summary, the above discussion has shown that categorisation of valency complements based on syntactic case is a viable option for a contrastive comparison of English and German sentence patterns. Nevertheless, since the analysis of syntactic case is relatively uncommon for English it was not utilized for valency categorisation in this study.

It has also been argued that case categorisation is first and foremost a syntactic feature onto which functional categories can be mapped. But the relationships between case and function or case and semantic role are varied, and are not categorical one-to-one relationships.

### 4.5 Categorisation by Semantic Features

Semantic features are, strictly speaking, not a category on their own accord, but should be seen as semantic restrictions, which apply to the analysis of both syntactic and semantic valency (Helbig and Schenkel 1975: 53). Semantic restrictions are useful additional information to distinguish the use of verbs with a similar meaning and the same valency sentence pattern. For example, the English verb EAT applies to humans and animals, but in German a distinction is made between the verbs ESSEN (23) and FRESSEN (24).

```
23) What in fact is it that is persuading people not to eat this kind of meat these days?
23-G) Warum wollen die Menschen denn heute dieses Fleisch nicht essen?
23a-G) *?Warum wollen die Menschen denn heute dieses Fleisch nicht fressen?
24) Pigs, hens, fish and so on have no scruples about eating their own kind.
24-G) Schweine, Hühner, Fische usw. fressen ohne Skrupel ihre Artgenossen.
24a-G) *?Schweine, Hühner, Fische usw. essen ohne Skrupel ihre Artgenossen.
```

Categorisation by syntactic valency complements is not sufficient to explain the different use in German as both verbs have the same valency sentence structure <sub obj>. Sentences 23a-G and $24 a-G$ are both grammatically correct, but are semantically not acceptable in German. In order to distinguish between the uses of the two verbs in German the semantic restrictions need to be mentioned, the subject complement of ESSEN is human, while for FRESSEN it is non-human.

Similarly, providing semantic restrictions for the subject complements of the multi-word units 'BE eager' and 'BE easy' (see also discussion pp 80-81) helps to distinguish between their use. While 'BE eager' expresses an intention and therefore needs a subject complement that can express intention, usually a human being or an institution (examples $8 \mathrm{a}, 9-11$ ), 'BE easy' expresses a difficulty and can take either a human or non-human subject (examples 8b, 1214).

Semantic restrictions, sometimes also called semantic components, semantic categories or selectional restrictions, have been referred to in various linguistic models, but are generally attributed to the framework of generative grammar (Chomsky 1957, 1965). Faulhaber (2011: 13) notes that "the general difficulty in assigning semantic restrictions and semantic roles is that it is impossible to exclude a certain degree of subjectivity. There is no formal criterion to verify any decision as to what is the most appropriate choice". Whilst there are some words where the semantic category of the sentence complements can easily be identified as in the above example of ESSEN and FRESSEN, this is difficult for a vast majority of complements
and their interpretation often depends on the context. For example, Engel (1988: 359) notes that the German nouns 'Raum' ('space') and 'Zeit' ('time') can be categorised either as inanimate, countable entities or as intellectual concepts depending on their context. Furthermore, a single semantic restriction is often not sufficient but a number of semantic categories are needed as in the example of ' $B E$ easy' where the semantic restrictions for the subject include the semantic categories human and institution.

Despite the interpretative character of semantic features or restrictions, which are mainly based on common or frequent language use, they play an important role in understanding poetry, jokes, metaphors or other imaginative literature. Schrott and Jacobs (Frankfurter Allgemeine Zeitung 16.05.2012) note that these creative uses are generally identified by humans and accordingly interpreted. They thus contradict Chomsky's (1957: 15) claim of possible grammatically correct but semantically nonsensical sentences and claim that the arguably nonsensical sentence "Colourless green ideas sleep furiously." can with a little semantic fine-tuning be interpreted as a sensible statement. Grice's (1975) cooperative principle, which states that communication is intentional and the reaction time for the processing of information depends solely on the identification of the speaker's intention regardless of whether it is a literal, figurative, idiomatic, ironic or indirect statement - could also be seen as supporting the argument that semantic restrictions reflect language use.

In summary, it could be stated that semantic features represent semantic categories of frequent language use, and can be, despite the objectivity issues regarding their categorisation, a useful tool in interpreting creative language use and in identifying semantic differences of language use between languages.

### 4.6 Categorisation by Semantic Roles

This section begins with a general introduction to the concept of semantic roles and the issues involved with semantic analysis. I will then draw a comparison between some grammatical theories and their treatment of semantic roles and compare these to the valency approach. Section 4.6.1 will look at semantic roles in traditional case analysis, section 4.6.2 at semantic roles in SFG (Halliday 1994), section 4.6 .3 at case grammar and frame semantics (Fillmore 1968, 1977), and section 4.6 .4 at construction grammar (Goldberg 1995).

The concept of semantic roles of cases originated from the traditional investigation of the Greek and Latin case system, where cases are understood to show the functions, i.e. grammatical and semantic relations, of the sentence elements (Blake 2001: 3). Two points will be brought forward. First, it will be argued that a reciprocal one-to-one mapping of cases to functions and cases to semantic roles is not possible and that therefore language analysis needs to be done at different levels. Second, it will be argued that, because of the interpretative characterisation of semantic roles, their required number of semantic roles will always be controversial (v. Polenz 2008: 169), and that in many modern grammars, such as functional grammar, case grammar or construction grammar, semantic roles are often not based on syntactic features but on an (assumed) extra-linguistic reality, i.e. ontological features (Engel 2004: 190).

Semantic roles are essential from a theoretical perspective as they are not surface dependent. This means that their meaning content does not change based on sentence structure, compared to functional categories where, for example, the subject and object change positions in passive structures. Semantic roles also do not depend on morphological markings for identification as syntactic cases do, and are therefore, arguably, 'universally' suitable for all languages, and can thus be an important analytical tool in cross-language
comparisons. Furthermore, classification by semantic roles generally does not distinguish between obligatory and non-obligatory sentence elements, i.e. sentence complements and adjuncts. The relationships between syntactic cases, syntactic functions and semantic functions are exemplified in example 25 and its transformations for the divalent verb GIVE and its German equivalent of GEBEN.


As can be seen, while the semantic roles of the various sentence elements remain consistent in the transformations $25 a$ and $b$, the case and the syntactic function of these change. For this reason, it has become common to refer to traditional case analysis based on morphology and syntax as 'surface cases', and to semantic relationships between sentence elements as 'deep cases' (Blake 2001: 63). Furthermore, sentence elements expressing syntactic

[^10]relations are commonly referred to as 'complements', while elements expressing semantic relations are called 'arguments'. The following discussion will follow this distinction in order to avoid ambiguity with regard to whether the analysis relates to syntactic or semantic relationships of sentence elements. Unfortunately, this distinction is not always categorically followed in the relevant literature and therefore it is at times unclear whether a statement is based on syntactic or semantic relationships.

Syntactic analysis of a sentence may not always be sufficient to distinguish between different meanings or readings of an ambiguous sentence and clarification may be supported by providing semantic information as demonstrated in example 26 (v. Polenz 2008: 60, my translations).

26-G) Sie fahren mit Abstand am besten.
Reading 1
26a) You drive by far the best. / Your driving is by far the best.
Reading 2
26b) You drive best / safest when keeping your distance.

The difference of the readings of 26 as $26 a$ or 26 b can be visualised for German in valency stemmas (figures 4.3a and b respectively).


Fig. 4.3a: Stemma for reading $26 a$


Fig. 4.3b: Stemma for reading $26 b$

In figure 4.3a the phrase 'mit Abstand' is an adjunct classifying 'am besten' and therefore does not belong to the valency of the verb FAHREN, while in figure 4.3b it expresses the manner of driving and is therefore an adverbial complement (prepositional complement). These differences in reading, which become apparent in the translations, cannot be explained by the syntax but need semantic interpretation. 4.3a expresses praise and the
subject 'sie' takes the semantic role of EXPERIENCER, while 4.3b is an advice where the subject 'sie' represents a driver, i.e. an AGENT. However, knowing which reading is intended only becomes clear from the wider context. For example, knowing that this sentence is often found as a poster along German motorways suggests reading 26 b.

Semantic roles add information to the syntactic analysis and can highlight different realisation forms in contrastive studies, as shown in example sentence 27 (Gross 1998: 104).

| 27-G) | Sie <br> subject | nahm | $\underline{\underline{\text { ihm }}}$indirect object | den Ball <br> direct object |
| :--- | :--- | :--- | :--- | :--- |
|  | AGENT |  | EXPERIENCER | PATIENT |

The German and English sentence structures differ as the two equivalent verbs realise the semantic roles differently. While the role 'experiencer' is realised with an indirect object in German 'ihm', the English realisation requires a prepositional complement 'off him'. Similarly, in example 26 the semantic role 'instrument' varies in its syntactic realisation between the two languages.

| 26-G) | Sie <br> subject | fahren | $\underline{\text { mit Abstand }}$ <br> adverbial complement <br> (preposition) | am besten. <br> adjectival complement |
| :--- | :--- | :--- | :--- | :--- |
| 26b) | AGENT |  | INSTRUMENT |  |
|  | You <br> subject | drive | safest <br> adjectival complement | when keeping your distance. <br> adverbial complement (wh-clause) |
|  | AGENT |  |  | INSTRUMENT |

As can be seen, the semantic role 'instrument' is realised with the prepositional phrase 'mit Abstand' in German, and with a subordinate wh-clause 'when keeping your distance' in English. Furthermore, semantic roles may not only be realised differently between languages, but may not have to be realised at all, as shown for example sentence 8a. While
in German the 'beneficiary' of John's eagerness needs to be realised as object, this is facultative in English.

| 8a) | is eager |  | to please. |
| :---: | :---: | :---: | :---: |
|  | subject |  |  |
|  | Agent |  |  |
| 8a-G) | John ist begierig | andere | zufrieden zu stellen. |
| Case: | nominative | accusative |  |
|  | subject | object |  |
|  | Agent | Beneficiary |  |

In the following I will discuss the notion that semantic roles are linked to syntactic cases, and argue that a correlation between syntactic case and semantic role is not given (v. Polenz 2008: 61, 169).

### 4.6.1 Semantic Roles in Traditional Case Analysis

The notion that syntactic cases have a specific semantic function in a sentence has a long tradition in traditional grammar analysis. Firstly, it seems that the Latin terms for the cases suggest a semantic role. For example, nominative stems from 'nominare' meaning 'to nominate / to name', accusative from 'accusare' meaning 'to accuse' , dative from 'datum' meaning 'that which is given' or genitive from 'generare' meaning 'to generate' (Jones and Sidwell 1986: 10-11).

This notion is supported by the fact that interrogative forms can be used to identify cases in less morphologically marked languages such as English (cf. section 5.3.1.4, p 152). For example, the nominative case can be identified with the question 'who / what' and the accusative with ' $w h o(m) /$ what', as exemplified in example 28.
28) We must carefully consider the balance of power.

| Nominative | - Who must consider? | - AgENT |
| :--- | :--- | :--- |
| Accusative | - What must we consider? | - PATIENT |

The question forms seem to imply that the nominative case indicates that someone or something is 'doing the verb', i.e. a DOER or AgENT, and the accusative case indicates 'to which the verb is being done', i.e. a PATIENT (Oulton 1999: 16).

The dative, identified with the question 'to whom', relates to the BENEFICIARY or RECEIVER of the verb. For example, in example sentence 25, 'Egypt' is the BENEFICIARY or RECEIVER of fair quotas.

```
25) We should give Egypt a fair export quota.
Dative: - To whom should we give a quota? - Beneficiary
25-G) Wir sollten Ägypten faire Exportquoten geben.
Dative: - Wem sollten wir Quoten geben? - Beneficiary
```

Syntactic case markings thus apparently indicate the relationships that exist between the sentence elements. These relationships can be analysed either at the syntactic level as subject, object or indirect object, or the semantic level as Agent, Patient or Beneficiary. But, as Malmkjær (2004: 251) notes, these definitions are not watertight and there are variations within languages, i.e. they only provide a guide and are not a reliable formula. For example, in German it will always be the case that the role of AGENT is in subject position and therefore in the nominative case (Duden 2009: 919) in active clauses. However, if there is no role of AGENT present in a sentence, the subject can take a number of different semantic roles, as exemplified in 29.

```
29-G) Ich bekam einen Asthmaanfall. Wer bekam einen Anfall? - nominative - subject - PATIENT
29) I had an asthma attack. Who had an attack? - nominative - PATIENT
```

The argument brought forward in the above discussion is that syntactic case, syntactic function and semantic role constitute three aspects of language analysis, which need to be
carried out independently. The relationships that exist between the three levels are determined by the verb in a sentence, and cannot be generalised.

### 4.6.2 Systemic Functional Grammar

The type of semantic role could be said to depend on the semantic properties of the verb (Huddleston and Pullum 2002: 227). For example, in sentence 30 'the storms' might be more appropriately classified as the semantic role of FORCE, as the role AGENT implies an animate and conscious doer.
30) The storms blew thousands of hectares of trees down.

30-G) Der Sturm mähte auf Tausenden von Hektar die Bäume nieder.

Such an interpretation is generally based on the classification of verb categories which distinguish themselves from each other by the different semantic roles with which they occur. This is best exemplified in Halliday's (1994; Halliday and Matthiessen 2004) systemic functional grammar (SFG), where the clause is seen as the representation of human experience of the extra-linguistic world. According to Halliday (1994: 106) "reality is made up of 'processes'", denoted by verbs which consist of the process itself, the participants in the process which are either obligatory or facultative, and the circumstances associated with the process which are optional. The similarity to valency theory is notable. Processes, i.e. verbs, are the valency carriers of a clause, the participants represent the valency complements and the circumstances represent the adjuncts (Smirnova and Mortelmans 2010: 74). This relationship of the sentence elements is visualised in figure 4.4.

Halliday (1994: 107, 108) categorises six different process types which can be distinguished by the semantic role of the participants. The inner circle represents the six core or 'pure' processes or verb types, which are material, mental and relational. The other three process
types in the inner circle are sub-types as they show characteristics of the core types and thus form a type of their own. These are behavioural, verbal and existential process types.


Fig 4.4:
Process types, their participants and circumstances in SFG
(based on Halliday 1994, 2004)

The core process types can be further divided and specified (second circle from the centre). For example, the mental process covers the concepts of 'thinking', 'feeling' and 'seeing'. The third circle and the fourth circle show the semantic roles of the participants. For example, mental process types occur with the participants SENSER and Phenomenon. The outer circle represents the peripheral circumstances which are not governed by a process.

The classification of verbs, based either on grammatical or semantic tendencies, has a long tradition in grammatical analysis (e.g. Jackson 1990: 8, Duden 2009: 411, v. Polenz 2008: 159-165, Levin 1993). Halliday's (1994) approach reminds one of v. Polenz' (2008: 174)
semantic valency approach, who states that a verb typically occurs with a restricted number of semantic roles, i.e. argument classes. These arguments form argument sentence patterns, which are the semantic equivalent to the syntactic valency complement sentence patterns.

However, there are numerous lists of semantic verb categorisations found in grammar books. It is notable that, although there are some overlaps, the different verb categorisations are not congruent. This is probably not surprising as verb-class membership is not categorical but relational and, depending on the context, verbs may belong to different groups (v. Polenz 2008: 160). Halliday and Matthiessen (2004: 172) state that the borders between verb category types are not clear-cut but 'fuzzy', i.e. verb meanings may shift from one category to another based on their context (Quirk et al. 1985: 178; Biber et al. 2002: 110). This, however, implies it is not possible to classify a verb in isolation, because classification is reliant on a verb's occurrence in a clause. For example the verb WORK can be semantically classified as an action in example 31 and as an event in 32.

```
31) We worked well together.
31-G) Wir haben hervorragend zusammengearbeitet.
32) Nothing has really worked as planned.
32-G) Im Grunde hat nichts funktioniert wie vorgesehen.
```

This in turn will have implications on the semantic roles given, but not on the syntactic complements as in both 31 and 32 the valency sentence patterns consist of a subject and an adverbial complement. It now becomes clear that semantic and syntactic analysis represent different levels of language analysis. The examples also highlight that semantic argument sentence patterns are more varied, i.e. there are a higher number of possible argument sentence patterns than there are syntactic valency complement sentence patterns. This in turn means that argument sentence patterns and complement sentence patterns are not in a one-to-one correspondence with each other. Different argument patterns may be
represented by the same complement pattern, or different complement patterns may be represented by the same argument pattern.

From a theoretical perspective both syntactic and semantic analysis of sentences is essential in order to understand a language. Argument sentence structures contribute to the meaning or reading of a sentence and thus belong to the 'deep structure', they are not realised on the 'surface', i.e. the linear order of language expressed by the syntactic valency complement sentence patterns. Thus, language or sentence analysis is based on two different, though closely linked, levels of language, the syntactic and the semantic level.

If the syntactic and the semantic levels are not clearly distinguished, ambiguities and uncertainty may occur. This is, in my opinion, partly the case in SFG, where syntactic and semantic features are often seen as resulting from each other, noted by Halliday and Matthiessen (2004: 260) as "the semantic use of language forms the basis for its syntactic forms". I will demonstrate my point by discussing the following example analysis by Halliday (1994) of the verb BE. Halliday (1994: 119) argues that verbs in the same verb category not only have the same semantic roles, but also have the same syntactic structure. He notes that relational processes are either attributive $(33,34)$ or identifying $(35,36)$. The distinguishing feature is that attributive relational processes are not reversible (33a, 34a), while identifying ones are (35a, 36a).

| 33) | Your story sounds complete nonsense. | $33 \mathrm{a})$ | *Complete nonsense is sounded your story. |
| :--- | :--- | :--- | :--- |
| 34) | William is a friend. | $34 \mathrm{a})$ | *A friend is William. |
| 35) | Peter played Hamlet. | $35 \mathrm{a})$ | Hamlet was played by Peter |
| 36) | William is my friend. | 36a) | My friend is William. |

Identifying relational processes occur with the semantic roles IDENTIFIED and IDENTIFIER.

| 35) | Peter played Hamlet. | 35a) |
| :--- | :--- | :--- |
| IDENTIFIED IDENTIFIER |  | Hamlet was played by Peter |
|  |  | IDENTIFIER | IDENTIFIED

According to Halliday (1994: 122-126) these roles cannot be distinguished for the verb BE, and he comes to the conclusion that the reversion expresses voice, i.e. the passive, which arguably also applies to the verb $B E$ and becomes clear when $B E$ is exchanged with the verb REPRESENT, which according to Halliday expresses the same meaning (36b, 36c).

| 36) | William | is my friend. |  | 36a) | My friend IDENTIFIER | is | William. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | IDENTIFIED | IDENTIFIER |  |  |  |  | IDENTIFIED |
| 36b) | William | represents | my friend. | 36c) | My friend IDENTIFIER | is represented | by William. |
|  | IDENTIFIED |  | IDENTIFIER |  |  |  | IDENTIFIED |

Within the SFG approach such an argument is possible since, as mentioned previously, in SFG the syntactic sentence element 'complement' stands for any nominal element that could potentially become the 'subject'. However, this commutation or replacement leaves SFG having to explain the apparently different realisation forms of the passive voice. I believe that starting language analysis with its syntactic features is preferable. For example, the local grammar of the verb BE does not govern an object complement, but a predicative complement which does not occur in the passive voice. The verb REPRESENT on the other hand governs an object complement and can therefore occur in the passive voice.

| BE | <sub prd> |
| :--- | :--- |
| REPRESENT | <sub obj> |

Therefore, I argue that Halliday's analysis is not on a like-for-like basis. Although verbs may be near-synonyms, express the same meaning in a sentence and occur with the same argument pattern, they often behave syntactically differently (Pustejovsky 1995: 11). As a consequence syntactic analysis cannot be derived from semantic analysis.

### 4.6.3 Case Grammar and Frame Semantics

Frame semantics developed from case grammar. Therefore it makes sense to discuss the two theories together. Fillmore (1968) developed case grammar as a response to the neglect of the (semantic) functions of sentence elements within transformational grammars as represented by, for instance, Chomsky (1965). Fillmore's (1968: 23) theory of case grammar formulates the idea that the basic structure of sentences, their so called 'deep structure', is formed by a proposition, "a tenseless set of relationships involving verbs and nouns". The relationship between verbs and nouns is based on 'case' notions as to "who did it, who it happened to, and what got changed" (ibid. p 24). The initial close relationship to traditional syntactic case analysis through question forms (cf. section 5.3.1.4, p 152) is notable (Busse 2012: 34).

Fillmore (1968: 24-25) initially identified the six 'case roles' Agentive, Instrumental, Dative, Facultative, locative and Objective. His choice of terminology is somewhat unfortunate and misleading as the labels for the semantic 'cases' are similar to the labels for syntactic cases which seems to imply that there is a one-to-one correspondence between the semantic 'deep' cases and the syntactic 'surface' cases. In order not to confuse the traditional syntactic cases with Fillmore's semantic 'cases' I will refer to the latter as semantic roles and keep the term case for the former. Fillmore's semantic roles are closely linked to the concept of semantic valency relations (cf. Fillmore 2003: 458), which had until then, according to Busse (2012: 34), been largely neglected in linguistic investigation and theory.

There are three specific issues which complicate the categorisation of semantic roles. First, "the number of semantic roles is potentially unlimited and their descriptions are to a great extent arbitrary as they largely depend on an individual's unique conceptual framework" (Peterwagner 2005: 124). Second, "these infinitely variable phenomena of the real world are difficult to match into a discrete number of linguistic categories" (Allerton 1982: 54). And
finally, as noted by Blake (2001: 66), "there are no agreed criteria or tests for semantic categorisation". As a result, there is often uncertainty and ambiguity regarding the classification of semantic roles.

For example, Fillmore (1968: 25) stated that semantic roles are invariable across paraphrases, i.e. they remain consistent. Therefore, the semantic role of 'Chicago' in examples 37a and 37b is in both LOCATION.

| 37a) | It is windy in Chicago. | 37a-G) | Es ist windig in Chicago. |
| :--- | :--- | :--- | :--- |
| 37b) | Chicago is windy. | 37b-G) | Chicago ist (sehr) windig. |

However, Engel (2004: 190) argues that while in 37a 'in Chicago' is syntactically a prepositional complement which expresses the semantic role of LOCATION, while in 37b 'Chicago' is the subject complement of the verb BE, which assigns a property to the subject 'Chicago' and should therefore be classified as EXPERIENCER. Similarly, in example 38 'the river' is in case grammar classified as ObJECTIVE since in reality it is not performing an action nor is it the instrument of an action. However, syntactically 'the river' is the subject of an activity verb and the semantic role should therefore be either Agentive or Instrument.
38) The river divides the city. 38-G) Der Fluss teilt die Stadt.

Peterwagner (2005: 124) demonstrates these categorisation issues in examples 39 and 40, which can be analysed in two ways.

## Analysis 1:

39) He went to the house.
40) He gave the book to Mary.

LOCATION
Beneficiary

Analysis 2:
GOAL
GoAL

In analysis 1 the prepositional phrase in 39 is classified as fulfilling the role of LOCATION, and in 40 as that of BENEFICIARY, whereas in analysis 2 both instances are classified as GOAL, i.e. a place to which something moves or towards which an action is directed.

In view of this discussion it is probably fair to say that a consensus on the classification process of semantic roles is highly unlikely as, according to Fillmore (2003: 466), the number of semantic roles needed differs amongst researchers and depends on the depth, purpose and level of the analysis. Faulhaber (2011: 13) points out that a low number of semantic roles may be more appropriate for comparative purposes; however, this may result in vagueness and overgeneralisations. A high number of semantic roles may lead to a more accurate analysis, but may prevent drawing any generalisations.

Despite the issues regarding categorisation of semantic roles, it could be stated, so far, that case grammar shows the semantic relationships between sentence elements independent of the syntax (Helbig 1992: 21). In work that is analogous to valency theory, Fillmore (1968) assumes that the sentence constituents are determined by the verb, which forms the structural (grammatical) and semantic centre of the sentence (Busse 2012: 36). Fillmore (1968: 26) states that verbs occur in certain 'case’ environments, called 'case frames'. 'Case frames' represent the semantic equivalents to the syntactic valency complement sentence patterns, i.e. they represent argument sentence patterns.

However, there is a subtle, but vital, difference in perspective between valency theory and case grammar. While in valency theory the verb is seen as determining the sentence pattern, in case grammar the sentence patterns, i.e. the 'case frames', are seen as choosing the verbs that can occur with them (Fillmore 1968: 26). This can be summarized as follows:


Neither perspective can be proven as correct or incorrect as they are not observable. Only the co-occurrence of verbs with certain nouns is observable and can be interpreted in either way (Helbig 1982: 56). The viewpoint taken in this thesis is in favour of the valency approach and it is believed that it is a property of the verb itself which allows it to 'fit' into some case frames and not in others (Welke 2011: 185).

It is the interplay of the syntactic and semantic relationships expressed in the sentence patterns which influence the reading and understanding of a sentence. For example, Faulhaber (2011: 15) argues that same syntactic complement sentence pattern can express different 'case roles' which may change the meaning of a verb as shown in examples 41 and 42, but that it is also possible that the same semantic pattern and meaning may be realised by different syntactic patterns as shown for example 43 and its transformation into 43a.

| [NP]+[NP] | 41) | He | called | her |  | a taxi. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Agent |  | Beneficiary |  | Patient |  |
|  | 41-G) | Er | rief | ihr |  | ein Taxi. |
| [NP]+[NP] | 42) | He | called | her |  | a fool. |
|  |  | Agent |  | Patient |  | Predicative |
|  | 42-G) | Er | nannte | sie |  | eine Närrin. |
| Agent Beneficiary Patient | 43) | He | called | her | a taxi. |  |
|  |  |  |  | [NP] | [NP] |  |
|  | 43-G) | Er | rief | ihr | ein Taxi. |  |
|  | 43a) | He | called | a taxi | for her. |  |
|  |  |  |  | [NP] | [for NP] |  |
|  | 43a-G) | Er | rief | ein Taxi | für sie. |  |

I have a slight criticism to make about her choice of word-class categories for the syntactic analysis, since using functional syntactic categories would have shown that the difference in meaning between 41 and 42 is also expressed in the surface structure. Example 41 has the valency complement sentence pattern <sub ind obj>, while in example 42 the verb CALL occurs with the pattern <sub obj prd>. Nevertheless, as the discussion so far has shown, the
claim that the same syntactic pattern can be interpreted in a number of semantic argument patterns remains valid. The above examples are also further proof that syntactic and semantic sentence patterns are independent from each other, but exist parallel to each other.

Valency theory allows language investigation on either the syntactic or the semantic level, thereby acknowledging that these are two independent levels. Case grammar, in contrast, is based on the semantic level, i.e. sentence structure is based on semantic roles, and the analysis of the syntactic realisation of semantic roles is a second step. In other words, case grammar does not allow for a solely syntactic analysis. I personally feel that this is partly restrictive as one level of analysis is given preference. Furthermore, several studies (e.g. Levin 1993, Croft 1998, Faulhaber 2011) have shown that the identification of semantic or participant roles does not provide superior information.

Case frames are fundamental to frame semantics. However, case frames in frame semantics are not based on syntactic cases as in the original investigation of case grammar, but on "cognitive frames that motivate and underlie the meanings of each lexical unit" (Fillmore 2007: 129). A 'frame' (ibid. pp 130, 155) in frame semantics is used to "refer to a schematic representation of speakers' knowledge of the situations or states of affair that underlie the meanings of lexical items". Thus, the concept of a 'frame', sometimes also called 'scene', "represents a fixed structure imposed on our conceptualisation of an event of a particular type and must specify, among other things, the number and types of participants (frame elements) necessary for 'enacting' the event denoted by a given predicate" (Fried and Östman 2004: 42). Again, the close link to Tesnière's (1980: 93) metaphor of the sentence as a role play is notable. The difference to valency analysis is that since 'case frames' are not based on syntactic case markings but on interpretation of the concepts involved, i.e. scenes or events activated in the mind, frames are largely perceived as a cognitive reinterpretation of a sentence (Ungerer and Schmid 2006: 210, Welke 2011: 144).

The question which may arise is to which degree different language users will interpret the same cognitive 'frames'. Furthermore, any cognitive involvement in language analysis is not provable or replicable. Also, it remains unclear whether semantic associations are an inherent ability of language users or formed as a consequence of repeated exposure to a certain collocational and / or colligational use of a word. Despite these issues, the benefit of frame semantics is that a correspondence of semantic roles between different languages can be assumed and investigated. For example, what is interpreted as an Actor or a PATIENT in one language can also be interpreted as such in another language. 'Universality' in this sense allows for the contrastive study of semantic language structures and their syntactic realisation forms as semantic roles may be encoded differently in different languages (Peterwanger 2005: 125; Götz-Votteler 2007: 38, Blake 2001: 66).

Frame semantics is applied in FrameNet (https://framenet.icsi.berkeley.edu/), a lexical database of English. FrameNet shows entries, lexical units, and their semantic frames. The semantic frame elements which constitute a frame are categorised by word-class for syntactic analysis. The database can be searched by individual word or by frames. For example, for the verb CONSIDER two frames or meanings are given:

Lexical Unit Frame
consider.v Cogitation
consider.v Categorization

The 'cogitation' frame is defined as "A person, the Cognizer, thinks about a Topic over a period of time", and the 'categorization' frame as "A Cognizer construes an ITEM as belonging to a certain Category" (https://framenet.icsi.berkeley.edu). The core frame elements are in bold in the description, and apart from these non-core frame elements, which may or may not be realised, are also annotated. The non-core elements for the semantic frame 'cogitation’ are: Degree, Depictive, Manner, Means, Medium, Purpose, Result and

| Frame Element | Realization(s) |
| :--- | :--- |
| Cognizer | CNI |
|  | NP.Ext |
|  | PP[by].Dep |
| Manner | PP[in].Dep |
| Time | Sub.Dep |
|  | PP[in].Dep |
| Topic | NP.Obj |
|  | NP.Ext |
|  | Sinterrog.Dep |
|  | VPing.Dep |
|  | Swhether.Dep |

Tab 4.1: Frame Elements of CONSIDER and their syntactic realisations

Time. Unfortunately, examples are not given for all non-core elements. The syntactic realisation possibilities of the semantic frame elements are shown in table 4.1. In a third step, the semantic frames and their syntactic realisation patterns, called valence patterns, are given, and example sentences of these can be retrieved (table 4.2).

As table 4.2 shows, there are four semantic frames for the cogitation frame, each with different valence patterns. With the exception of the abbreviations 'CNI' (frame element that is missing because the grammar of the sentence allows or requires an omission, e.g. the subject of an imperative, the agent of a passive verb) and 'Ext' (representing a grammatical function used for the subject of finite verbs), the syntactic analysis is straightforward and based on word-classes and their functions. Example sentence 44 demonstrates pattern 1, sentence 45 pattern 4, and 45 exemplifies pattern 5.
44) The question of the frequency of military use of these ranges [Topic] is also
worth CONSIDERING in detail [Mannerd . $C N$ I
45) The request ${ }_{\text {[Topic] }}$ would only be CONSIDERED ... CNI
46) The significance of autonomy is perhaps best illustrated by CONSIDERING its absence ${ }_{\text {[Topic]. }}$ CNI

As can be seen the approach in FrameNet looks at the actual surface structure and takes transformations into account, i.e. they are analysed as separate patterns. Valency theory, in
contrast, looks at the underlying syntactic structure and does not take transformations into account, i.e. possible transformations are analysed as belonging to the same syntactic pattern. For example, in valency analysis both the passive sentence 45 and the subordinate ing-clause in sentence 46 would be changed into active clauses, resulting in the same analysis as divalent <sub obj> valency complement pattern. Example 44 could be analysed in two ways. Either with CONSIDER as main verb as in transformation 44a resulting in the valency complement pattern <sub obj>, or, my preferred option, with 'considering' as part of the adjective phrase 'worth considering' with the main verb BE as shown 44b.

44a) [We] [Cognizer] CONSIDER [it] [Topic] [in detail] ${ }_{\text {[Degree] }}$.
44b) [It] [Phenomenon] is also [worth CONSIDERING] [APPRaisal] $\left[\right.$ in detail] ${ }_{\text {[Degree] }}$.

The question of to what extent possible transformations can be assumed within a sentence pattern is a difficult one to answer and presents a general issue of valency analysis. The approach taken in this research is that when a surface sentence pattern can be ascribed to general grammar rules or to a sub-class of verbs, it is analysed as a transformation and not as an individual pattern. Since all verbs can occur in a non-finite clause, a feature of the general grammar of English, and since passivisation is possible for a sub-class of verbs, these transformations, as in the above examples, are not shown as separate sentence patterns.

Despite the differences in the analysis, the identified valence patterns in FrameNet for CONSIDER for both semantic frames 'Cogitation' and 'Categorisation' are very similar to the identified syntactic valency sentence patterns for this case study (see table 6.1, p 173). However, it seems astonishing that one of the most frequent patterns of CONSIDER, a thatclause in object position, is not shown in FrameNet.

In summary it can be stated that the key difference between the frame semantics approach applied in FrameNet and the valency approach applied in this case study differ with respect to their perspective on language. The analysis in FrameNet is based on semantic frames which are seen as cognitive constructs which can only be realised by certain verbs. In contrast, valency analysis assumes that the verb determines the sentence pattern and initially no preference to syntactic or semantic analysis is given. Both perspectives have advantages. For example, since in FrameNet each semantic frame is a representation of a certain meaning a difference in form, i.e. the existence / non-existence and the combination of the semantic frame elements, is generally accompanied by a difference in meaning. Thus, verbs that occur in the same frames have the same meaning although the frame elements may have a different syntactic realisation. Valency theory, on the other hand, is initially not restricted to either semantic or syntactic analysis and is therefore more flexible with regard to linguistic analysis. For example, the analysis of the interplay of syntax and semantics in valency theory is not restricted to a particular viewpoint but can be analysed from either perspective. This seems to be a crucial advantage of valency theory, as linguistic investigation will never be able to profess to the syntactic or the semantic view, as in reality only the co-occurrence of verbs and patterns is observable (Welke 2011: 180).

An advantage of both theories is that they are not restricted to verbs alone, but can be applied to a number of word-classes, mainly verbs, nouns and adjectives, allowing for a more comprehensive analysis of linguistic features.

### 4.6.4 Construction Grammar

Construction grammar integrates semantic, syntactic and cognitive aspects of language analysis. According to Fried and Östman $(2004: 11,12)$ the aim of construction grammar is to represent the relationship between structure, meaning and use in a language. There are
three main branches of construction grammar focusing on information structure (Lambrecht 1996), formal semantics (Kay and Fillmore 1999), and argument structure (Goldberg 1995, 2006). In the following I will mainly look at Goldberg's approach to argument structure and compare it to semantic (and syntactic) valency categorisation. The two main differences between construction grammar and valency theory will be addressed. First, construction grammar sees function and form as inseparable from each other (Goldberg 1995: 7), while valency theory allows for a separate analysis of syntactic forms and semantic functions, i.e. form and function are seen as separate but interdependent features of language. Second, construction grammar assumes the co-existence of semantically defined argument structure constructions and verb constructions independently from each other; only a combination of the two can reveal sentence meaning (Goldberg 2006: 29). Valency theory, on the other hand, assumes that the verb determines the patterns or constructions it can occur with, and thus the sentence meaning.

The idea of argument structure constructions is closely related to case grammar and frame semantics, i.e. the semantic differences between construction elements and their consistency in paraphrases investigated. For example, Fried and Östman (2004: 13) argue that although the verb REMEMBER has the same meaning in examples 47 and 48, the syntactic subject expresses different argument roles as demonstrated in 47a and 48a.

| 47) | $\underline{\text { John remembers nothing of years gone by. }}$ | $>$ AGENT |
| :--- | :--- | :--- |
| $48)$ | $\underline{\text { England remembers nothing of years gone by. }}$ | $>$ LOCATION |
| $47 \mathrm{a})$ | $\underline{\text { John's memory of years gone by is non-existent. }}$ | $>$ AGENT |
| $48 \mathrm{a})$ | The memory of years gone by is non-existent $\underline{\text { in England. }}$ |  |

As can be seen, when the meaning is paraphrased using nominalisations the animate subject in 47 occurs with a possessive 's (genitive), while the non-animate subject in 48 is expressed as a prepositional phrase with 'in'.

From a valency perspective I would argue that 47 and 48 express the same argument roles. In valency theory it is assumed that the verb defines the semantic restrictions of its complements. Restrictions have to be understood as usage based. Based on the usage of the verb REMEMBER, which generally occurs with an animate conscious object in subject position, 'England' should be understood as 'a nation of people', i.e. an animate entity, which would allow the genitive (48b).

```
48b) England's memory of years gone by is non-existent. > AGENT
49) While Britain shrinks, the world's memory of Churchill remains big.
50) ... the world's memory of the extended families that are no more, ...
51) ... reason for the optimism is the city's memory of the ... successful 1976 ... Convention.
52) The second irritant is Asia's memory of the 1930s and 1940s.
53) ... reflecting yet another version of Japan's memory of war.
```

Such an analysis can also be reconciled with the approach of frame semantics since the 'frame' or 'scene' of an inanimate object being given animate status is quite realistic, as examples 49-53 extracted from the BoE corpus and other expressions along the lines of 'the computer's memory' or 'the state should reconsider' show.

The above examples demonstrate that the criterion of consistency in paraphrase for arguments is not as distinct and unambiguous as often assumed. It also follows that 48a is not a paraphrase of 48 as the semantic roles are different.

According to Goldberg (2006:5,9) "all levels of grammatical analysis involve constructions: learned pairings of form with semantic or discourse function, including morphemes, words, idioms, transitivity, passivisation, questions, relative clauses, and so on". Analysis of a sentence or statement can therefore be based on a wide range of different construction categories (ibid. p 10), which are not derived from each other, but co-exist as relatively independent units next to each other in a sentence (Smirnova and Mortelmans 2010: 134). The two most important construction categories for the creation of content meaning in a
sentence are verb constructions and argument structure constructions (Goldberg 1995: 43, 2006: 6).

A verb construction is concerned with the definition of the meaning of an individual verb "relative to some particular [cognitive] ${ }^{13}$ background frame or scene, which itself may be highly structured" (Goldberg 1995: 25). She (ibid. p 27) also notes that "it is typically difficult to capture frame-semantic knowledge in concise paraphrase, let alone in formal representation or in a static picture". Construction grammar thus assumes some selfcontained, inherent cognitive, i.e. mental, meaning of words. This contrasts with the phraseological view often adopted in valency theory, where word meaning is seen as being dependent on the actual instance of use (Teubert 2004b: 91-92, 99-100), i.e. meaning is negotiated amongst its users.

Argument structure constructions are based on a specific syntactic sequence, their form, which is said to evoke cognitive frames or scenes, i.e. express meaning. Form and meaning of argument structure constructions are seen as inseparable. Table 4.3 shows some examples of argument structure constructions based on Goldberg (1995: 4).

| Argument Structure <br> Construction | Meaning | Form / Example |
| :--- | :--- | :--- |
| Ditransitive | X causes Y to receive Z | Sub V Obj Obj <br> Pat faxed Bill the letter. |
| Caused Motion | X causes Y to move Z | Sub V Obj Obl <br> Pat sliced the carrots into the salad. |
| Resultative | X causes Y to become Z | Sub V Obj Xcomp <br> She kissed him unconscious. |
| Intransitive Motion | X moves Y | Sub V Obl <br> The fly buzzed into the room. |
| Conative | X directs action at Y | Sub V Oblat <br> Sam kicked at Bill. |

Tab. 4.3: Meaning and form of argument structure constructions (Goldberg 1995: 4)

[^11]It is somewhat unfortunate to mix syntactic and semantic descriptions for argument structures (see also section 4.6.3). For example, the term 'ditransitive’ should be reserved for syntactic observations. According to Goldberg (1995: 10) the ditransitive argument structure can "be associated directly with agent, patient, and recipient roles" and the general assumption taken by Goldberg is that "simple clause constructions are associated directly with semantic structures which reflect scenes basic to human experience" (ibid. p 5). Therefore, the ditransitive argument construction could as well, and probably more appropriately, be described as 'transfer' construction.

Goldberg (2006: 7) claims that the "argument structure constructions provide the direct link between the surface form and the general aspects of interpretation". According to Goldberg (ibid.) the verb construction of SLICE always means 'to cut with a sharp instrument' in examples 54 to 58 , while the argument structure construction imparts the sentence meaning as "something acting on something else (54), something causing something else to move (55), someone intending to cause someone to receive something (56), someone moving somewhere despite obstacles (57) or someone causing something to change state (58)" (ibid.), respectively.
54) He sliced the bread.
55) Pat sliced the carrots into the salad.
56) Pat sliced Chris a piece of pie.
57) Emeril sliced and diced his way to stardom.
58) Pat sliced the box open.
> transitive construction
$>$ caused motion construction
> ditransitive construction
> way construction
> resultative construction

In general, I would argue that the differences in meaning could equally well be explained based on the different syntactic environments, i.e. the valency complements the verb SLICE occurs with. Nevertheless, it is argued that because of this distinction between verb constructions and argument structure constructions, construction grammar can account for creative and novel uses of language for which other theories apparently cannot. For example, sentences 59 and 60 would traditionally be seen as ungrammatical as both

SNEEZE and LAUGH are monovalent verbs and, yet, the sentence contents are understood (Goldberg 1995: 9, 2006: 6; see also section 4.4).
59) He sneezed the napkin off the table.
60) We laughed our conversation to an end.

Following Goldberg (1995: 29) this is because the verb meaning is modified in accordance with the meaning of the argument structure. Thus, knowing that SNEEZE "involves a forceful expulsion of air" (ibid.) and that the argument structure construction is a caused motion construction with the meaning "X causes $Y$ to move $Z$ " (ibid. p 9) sentence 59 can be appropriately interpreted. However, this approach does not in my opinion explain the meaning of example 60 satisfactorily. Assuming that LAUGH evokes a semantic frame along the lines of 'producing a sound which expresses happiness', and the argument structure construction could be expressed as ' X results in Y to stop', i.e. a variation of the resulting construction, it still seems difficult to interpret the sentence content appropriately.

As I see it, the question which needs to be addressed is what is seen as a lexical unit, i.e. a 'unit of meaning'. Many of the examples discussed by Goldberg do not necessarily need a combinatory interpretation of verb and argument structure meaning, but could simply be seen as multi-word units such as phrasal verbs or semi-fixed phrases with their own syntactic valency complement and semantic argument patterns. For example, in sentence 60 the prepositional phrase 'to an end' occurs in the BoE corpus most frequently with the verbs COME, BRING and DRAW. It could be argued that 'COME / BRING / DRAW to an end' is the lexical unit which determines the meaning of 'LAUGH to an end'. Following Moon (1998) these expressions can be seen as 'phraseological collocations', where other analogous strings may be found and created to express the same or similar meaning. The meaning of 'LAUGH to an end' is thus negotiated based on the actual instance of use and knowledge of phraseological expressions. The phrase 'COME / BRING / DRAW (/ LAUGH) to an end',


#### Abstract

expressing the meaning of termination of a state or situation, can be treated as a lexical unit in valency theory with the valency sentence pattern <sub obj>. Goldberg (1995: 36) herself notes that the most frequently occurring word in a construction, i.e. a phraseological collocation, seems to determine the verb meaning in creative language uses.


Furthermore, looking at the prepositions themselves may also be a contributing factor in the appropriate meaning interpretation of sentences 59 and 60. According to Fillmore (1968: 21) prepositional phrases fulfil different functions, and Hunston (2008: 272) notes that "prepositions in particular serve to classify semantically the lexical words with which they frequently occur", i.e. prepositions often classify the specific meaning of the word they occur with. The preposition 'off' indicates movement away from something, while the preposition 'to' indicates that something is approaching or reaching a particular condition or state. In valency theory the prepositions that occur with a verb can be indicated as subscript. Since in sentences 59 and 60 the prepositional phrase is obligatory, i.e. it is not an adjunct, the valency complement patterns are <sub obj prp off> and <sub obj prp ${ }_{\text {to }}$ > respectively.

The idea of argument structure constructions which have an independent meaning also poses problems regarding their definition. In an attempt to keep the number of possible argument structures limited, Goldberg (1995: 32-34, 2006: 20) postulates a polysemy of constructions, i.e. "constructions are typically associated with a family of closely related senses rather than a single, fixed sense". For example, according to Goldberg (ibid.) the semantically based ditransitive argument structure construction incorporates a 'successful transfer' of an item (PATIENT) from an AgENT to a RECEIVER. However, a number of verb classes can occur in a syntactically ditransitive construction without implying a 'successful transfer', e.g. verbs of creation, such as BAKE (61), verbs of obtaining, such as WIN (62), verbs of obligation, such as PROMISE (63), or verbs of refusal, such as REFUSE (64).

These are analysed as a variation of the ditransitive argument structure construction expressing 'intended transfer' (61-63) or 'non-transfer' (64) respectively.

```
61) ... so I baked them some cookies for Christmas.
62) ...; a move that has won him new friends in the West.
63) The former Health Secretary promised her a top job at City Hall in return, ...
64) But officials refused her a passport in }1999\mathrm{ before finally relenting.
```

Within the framework of constructional grammar as presented by Goldberg, semantic and syntactic complexity is attributed to the argument structure construction which would otherwise be attributed to the verb. Goldberg (1995: 39) argues that "we may conclude that irrespective of whether we posit distinct verb senses or whether we attribute the resulting semantics to an interaction of verb and construction, it is necessary to account somehow for the observed differences in the resulting semantics".

Valency theory, in comparison, perceives semantic and syntactic aspects of language as complementing each other, i.e. they remain separate areas of language investigation (v. Polenz 2008: 51; Teubert 2003: 825). Syntactic aspects are expressed as complement classes, while semantic aspects are expressed as argument classes. Only the analysis of both levels in a sentence reveals how complements and arguments interact with each other, and reveals differences in the syntactic realisation of semantic arguments between different sentence structures.

| 65) | I | wrote | her | several notes. |
| :---: | :---: | :---: | :---: | :---: |
| Syntactic complements: | <sub |  | ind | obj> |
| Semantic arguments: | Agent |  | (Intended) | Patient |
|  |  |  | Beneficiary |  |
| 66) | I | write | a column | for a newspaper. |
| Syntactic complements: | <sub |  | obj > | Adjunct |
| Semantic arguments: | AgENT |  | PATIENT | (Intended) |
|  |  |  |  | Beneficiary |

As demonstrated in examples 65 and 66, argument classes can have different syntactic realisation forms, e.g. the role of Intended BENEFICIARY can be realised either as an indirect object complement or as a prepositional phrase, i.e. an adjunct. In construction grammar examples 55 and 56 would constitute two different argument structure constructions.

This section has shown that there are close links between construction grammar and valency theory. The main difference lies in the conception of language use. While in construction grammar language is seen as a cognitive system, no such assumption is made in valency theory, where only the outcome of language use, i.e. actual statements and utterances, is investigated. Despite their different approach, both theories can explain regular and creative uses of language.

### 4.7 CONCLUSION

In the discussion so far I have argued that syntactic structure and semantic structure cannot be ascribed to each other because they constitute different levels of language analysis (cf. Busse 2012: 37). Ideally, both syntactic or semantic language features should be investigated as differences in complement realisation (syntax) and differences in argument realisation (semantics) and the link between the two contribute to our understanding of language.

This chapter has looked at various methods of categorising valency complements. The two core approaches are syntactic and semantic categorisation. To distinguish between syntactic and semantic aspects, it has been suggested to reserve the term 'complement' for syntactic categories and the term 'argument' for semantic categories.

Valency assumes interdependency between syntax and semantics, but at the same time allows for separate analysis of each level. Whether it is sufficient to investigate just one level or whether both levels should be looked at depends on the purpose of an investigation. However, Pustejosvki notes that (1997: 5) "without the appreciation of the syntactic structure of a language, the study of lexical semantics is bound to fail". On the other hand, as noted by Helbig and Schenkel (1975: 61), syntactic structure is not always sufficient to distinguish the meaning of ambiguous utterances.

Within the syntactic and semantic valency categories different types can be investigated. Syntactic categorisation can be carried out by, for example, word-class, syntactic function or syntactic case. Semantic categorisation can be based on, for example, semantic restrictions or semantic roles. Which categorisation type should be chosen depends again on the purpose of an investigation.

It has been shown that categorisation by word-class is less suitable for inflected languages such as German, but effective in the analysis of less inflected languages such as English. The choice of categorisation type is therefore especially important in contrastive studies in order to show and account for similarities and differences between languages. Categorisation by syntactic function is generally suitable for all languages. However, it has been shown that the definitions of 'subject' and 'object' are not generally agreed upon and it is therefore important to provide the parameters that are applied in an investigation. Syntactic cases are suitable categorisation types for inflected languages, but less so for non-inflected languages. Nevertheless, it has been shown that it is possible to identify syntactic cases through question tests in any language.

Categorisation by semantic features or semantic restrictions is generally seen as an addition to syntactic analysis in order to accommodate semantic features of language analysis. But it
is also useful in the distinction of ambiguous utterances. Semantic roles are important from a theoretical perspective as they are, arguably, universally suitable for all languages. Similar to the categorisation by semantic features, there is little agreement on the number and definition of roles. Semantic roles are not directly observable, but require the interpretation and judgement of the researcher (Herbst et al. 2004: xxix). Therefore role identification is mainly subjective and based on individual intuitions. Furthermore, it is not always clear whether their definition is based on the syntax or on 'real' world interpretations.

Since categorisations are not inherent properties of language, different researchers will interpret observable occurrences differently. Some of these differences were addressed in the comparison of valency theory with other influential theories such as systemic functional grammar (Halliday 1985), case grammar and frame semantics (Fillmore 1968) and construction grammar (Goldberg 1995).

The advantage of valency theory seems to lie in its flexibility with regard to different categorisation classes. The relationship between the different categorisation classes can be investigated by mapping them onto each other, while at the same time differences in sentence structure can be analysed based on syntactic realisation forms and semantic functions of the sentence elements. This flexibility is due to the assumption that form and function are interdependent, but separate levels of language analysis.

## 5 SYNTACTIC VALENCY COMPLEMENTS IN CONTRASTIVE LINGUISTICS

### 5.1 Introduction

The previous chapter looked at the various aspects and levels of categorisation of sentence elements in valency theory. This chapter will focus on the syntactic aspect in detail as syntactic valency is taken as the starting point for contrastive language investigation and applied in the case study in chapters 6 ( p 170 ) and 7 (p 221). The reason for taking syntactic analysis as the starting point lies in the hypothesis that, since syntactic features are surface based, their frequency, i.e. their actual occurrence and use in language production, can be analysed through corpora. Furthermore, syntactic features are less prone to subjective interpretation than semantic features.

Contrastive linguistics, the comparison of two or more languages, has theoretical and practical aspects. It contributes to the theory of linguistic study in the form of 'analytical' or 'descriptive' studies which can help to evaluate linguistic claims in general; the practical approach of contrastive linguistics is concerned with 'didactic' or 'applied' studies which can offer insights into language teaching, dictionary compilation and translation studies (Hartmann 1977: 1). A key concern of contrastive linguistics is the methodology used for the comparison. The methodology will first have to decide which aspects, e.g. syntactic, functional, semantic or communicative, should be compared and contrasted. Furthermore, the issue of what is seen as an equivalent structure needs to be addressed. Sökeland (1977: $38,39)$ noted that the issue of equivalent structures poses problems even between similar languages such as German and English. For example, while German has case classifications, English has not $(1,2)$ which leads to differences in the analysis of sentence structure (ibid.).

| 1-G) | Ich schickte $\underline{\underline{i h m}}$ das Buch. | Dative | 1) | I sent $\underline{\text { him the book. }}$ Indirect Object |
| :--- | :--- | :--- | :--- | :--- |
| 2-G) | Ich schickte $\underline{\underline{i h n}}$ nach Hause. | Accusative | 2) | I sent $\underline{\text { him home. }}$ |

The chosen methodology will influence the findings of a comparative analysis with regard to the area or level of the investigation and its extent (Hansen 1983: 16-17). Burgschmidt and Götz (1974: 29) note that models for a contrastive comparison of languages should ideally relate form and function, i.e. syntactic and semantic features, of one language with those of another language, but that one level needs to be chosen as a starting point. Therefore it is important to find labels that suit all the languages under investigation, in order to highlight similarities and differences between them. For example, that valency theory never experienced a breakthrough in the analysis of English might have to do with the morphological properties of the language. English has mostly lost the noun-inflections indicating the cases which are generally seen as a parameter for the analysis of valency complements (v. Polenz 2008: 55).

This chapter will give an introduction and overview of the syntactic features of valency theory, and the issues relating to possible syntactic categorisation labels for sentence elements in German and English will be looked into. In section 5.2 it will be argued that valency theory is a local grammar and therefore belongs to the lexicon. Furthermore, valency theory will be compared to transitivity analysis and constituency grammar, and the suitability of these three theories for contrastive language analysis will be discussed. Section 5.3 will look at the current practice, i.e. various test methods and classification criteria, for the identification of valency complements and their application in a contrastive analysis of English and German.

### 5.2 Valency Theory: A Local Grammar

Valency theory is generally attributed to the French linguist Lucien Tesnière (1959). Tesnière transferred the idea of valency connections from chemistry to sentence structure (Engel and Schumacher 1976: 15). Similar to the valency of a chemical element's capacity to combine
with a fixed number of atoms of another element, valency theory is concerned with the property of words to combine with other elements, the complements, in forming phrases and sentences (figure 5.1).


Fig. 5.1: Valency as metaphor in sentence construction

Valency theory is based on dependency relations, where the concern of linguistic investigation is the sentence. Sentences are described as organised structures consisting of words (Tesnière 1980: 25). Words do not occur randomly in a sentence but form connexions, i.e. words are in relationship with other words syntactically or semantically. Structurally connexions are ranked in one of two ways: regent or dependent. Regents govern other words, while dependents are governed by another word. Every group, phrase and clause can have only one regent, but several dependents (Engel 1994: 21). Engel (ibid. p 95) notes that most grammars include a concept of 'government' (Rektion) to refer to the relationship between words and / or word-classes, the regent is often termed 'head' in other grammars.

Valency thus represents a local grammar which is concerned with the lexicalisation of syntax, often called lexico-grammar. Unlike general grammar where "grammarians have always attempted to describe general features of sentences" a local grammar acknowledges that "beyond these generalisations lies an extremely rigid set of dependencies between individual words, which is huge in size; [and] has been accumulated over the millennia by language users" (Gross 1997: 325). It should be noted, however, that there are some key differences
between valency theory and the 'local grammar approach' as coined by Harris (1991) and Gross (1993). The local grammar approach investigates lexical co-occurrences based on their linear order in a phrase, clause or sentence; it is thus mainly concerned with description of collocations, idioms, fixed, semi-fixed and recursive phrases. Examples of specific applications are Harris' (1991) investigation into recursive phrases in specialist literature, Gross' (1993) investigation into the local grammar of dates and times, or Barnbrook's (2002) analysis of dictionary definitions. Valency theory, on the other hand, attempts a broader description and is concerned with general syntactic and semantic aspects of elements that can occur with a verb independent of its linear realisation in a sentence.

In traditional grammar this relationship or connexion between sentence elements is expressed by the division into transitive and intransitive verbs (Helbig and Schenkel 1975: 11). It should be noted though that there is a difference in the understanding of what constitutes a 'transitive' or 'intransitive' verb between English and German terminology. While in German the term 'transitive' only refers to verbs which govern an object in the accusative case, in English the term refers to any verb that takes an object. Furthermore, the definition of what constitutes an 'object' is also debated amongst linguists (cf. section 5.2.2 on transitivity, p 132).

Despite the close links to theories of dependency, government and transitivity it should be noted that valency analysis is an independent linguistic discipline (Matthews 2007a: 11). While dependency relates to elements of whole word-classes, valency relations characterize subsets of word-classes or individual lemmas, i.e. valency states that some dependents, the complements, are specific to individual words, while others, the adjuncts, are aspecific, i.e. they can occur with practically any word of that word class. For example, German distinguishes between the subclasses of verbs typically followed by an accusative (accusative / transitive verbs) and those typically followed a dative (dative / intransitive
verbs); in English a division is often made between verbs typically followed by an '-ing' or a 'to-infinitive' form (table 5.1).

| German | Example verb | Example sentence |
| :--- | :--- | :--- |
| Accusative complement <br> (function:object) | halten | (-G) Ich persönlich halte ihn für eine sehr gefährliche <br> Person. <br> (3) I personally consider him to be a very dangerous <br> person.) |
| Dative complement <br> (function:object) | helfen | 4-G) Die damit verbundenen Stabilitätsvereinbarungen helfen <br> dem Eurosprössling sich klar nach vorne blickend zu <br> entfalten. <br> (4) The stability pacts will help the young euro to develop <br> with a clear eye on the future.) |
| English | Example verb | Example sentence <br> -ingcomplement <br> (function:object) <br> 5) The European Parliament should consider contributing to <br> the introduction of a fundamental change in attitude in this <br> area. <br> (5-G) Das Europäische Parlament muss in Betracht ziehen, an <br> einer solchen prinipiellen Veränderung mitzuwirken.) <br> to-inf complement <br> (function:object) <br> 6) Cohesion policy needs to be strengthened further. <br> (6-G) Die Kohäsionspolitik muss weiter gestärkt werden.) |

Tab. 5.1: Examples of subclasses of verb valency in German and English

Table 5.1 already demonstrates the differences in analysis that exist between different languages and which often make contrastive analysis difficult. But what is also notable is that all the identified valency categories in table 5.1 function as object of the sentence, thus providing a common feature in both languages. Valency analysis is not restricted to certain languages but can be applied to all languages. However, the parameters for the analysis of different languages may vary as language specific characteristics need to be accounted for (Emons 1974: 1). The key in contrastive studies is to use valency categories or labels which are suitable for both languages in order to compare the syntactic structure(s) in which a word occurs to the structure(s) of its possible translation equivalents.

The verb takes a special role as its dependents inevitably form a grammatically correct and meaningful sentence (Tesnière 1980: 26, see also Quirk et al. 1985: 50, Bloor and Bloor 2004: 8). Valency properties of verbs are closely related to the overall structure of a clause or sentence (Herbst 2009: 50), in other words, the sentence complements (Satzglieder) are
dependents of the main verb of a sentence or clause. Based on the premise that the clause forms the smallest communicative entity (Emons 1974: 6, Jespersen 1924: 307) verb valency becomes an interesting area of study in contrastive language investigation. Nevertheless, the current understanding of valency is not restricted to verbs, but can be applied to subclasses of all word-classes, e.g. nouns, e.g. 'consideration for others' but not 'belief for others', or adjectives, e.g. 'considerate of others' but not 'contemplative of others'. ${ }^{14}$

Valency is generally seen as a property of the lemma, i.e. of words as entered in a dictionary, and not of the individual word-forms, as it is assumed that valency relations and structures do not change with inflection (Matthews 2007a: 4). Furthermore, valency relations are relatively resistant to change, which leads some linguists to treat them as immutable, and in turn the product of an inherent quality of the word concerned (e.g. Welke 2011: 2). The alternative view, with which I agree, is that it is not the words that have these inherent qualities (they do not contain syntactic and semantic information), but that these qualities are associated with particular syntactic and semantic uses because of their frequent contexts of use. Contexts of use do not constrain absolutely, however, and a word can be used in an unusual valency pattern for particular reasons or, if these secondary uses become common, can change its valency. For example, the stative verb LOVE is in general grammars often said not to occur in the progressive form 'loving' (e.g. Swan 2005: 457). However, since the fast food chain McDonalds introduced the slogan "'m loving it" in the 1980s, this form is now more commonly found in everyday language use. Similarly, Callies (2010) reports of changes in the form-function mappings of subjects and objects for some German verbs, which have emerged in recent years. Nevertheless, the fact that valency patterns of words are extremely consistent over time is undeniable. They form part of the local grammar of words, i.e. valency patterns are specific occurrences of individual words, and therefore belong to the lexicon of a language and to what is generally termed 'the knowledge of words'.

[^12]Cornell et al. (2003: 8; see also Welke 1988: 14) succinctly summarize the valency approach in the following statements:

- Lexical items have the power to structure their surroundings syntactically and semantically.
- Sentences are organised bottom-up, from words to larger units.
- Lexical items, in particular the verb, demand complements to create phrases that are syntactically and semantically complete. Adjuncts can be added freely, giving additional information.
As a consequence the 'lexicon' provides much of the grammatical information needed to form a sentence.

Valency is therefore the property of language elements to combine syntactically and semantically with particular units for formation of larger units. In valency theory a 'lexical item' is not restricted to the single word. As noted by Ágel (2003: 28) and Engel and Schumacher (1976: 38-39) a lexical item may be a multi-word unit, e.g. an idiom or a phrasal verb, which structures the clause or the phrase.

The following sections will look into the issues involved in the identification and categorisation of syntactic valency complements, particularly with regard to contrastive language analysis. This will include a comparison of the valency approach with the approaches taken in transitivity analysis and constituency grammar to syntactic sentence analysis.

### 5.2.1 General Grammar vs. Local Grammar

The view taken in this thesis is that any language is based on conventions amongst its users. Words do not in themselves carry an inherent meaning, but their meaning, usually expressed as a paraphrase, is negotiated in the discourse and thus acquired by language users (Teubert 2004c). Moreover, most words are polysemous, i.e. they have more than one meaning depending on the environment of usage. Thus, when learning the meaning or meanings of a word, users also acquire knowledge about the environment of a word (Hoey
2005), i.e. its usage context, typical occurrences (collocations) and its structural use (grammar and colligations).

Similarly, grammars are seen as theoretical constructs which are based on paradigms of grammarians. The paradigm of valency grammar is that it is a local grammar, i.e. it refers to grammar that is specific to the individual word or lexical item and can therefore not be explained by the general grammar rules of a language. For example, not all words of the word-class verb take the same sentence structure, as illustrated in example sentences 7 to 9 by Allerton (1982: 1):

| 7) Oliver | stumbled $/$ pushed $/ *$ damaged $/$ ?*thrust ${ }^{15}$. | monovalent |  |
| :--- | :--- | :--- | :--- |
| 8) Oliver | $*$ stumbled $/$ pushed $/$ damaged $/$ ?*thrust | the key. | divalent |
| 9) Oliver | *stumbled $/$ pushed $/ *$ damaged $/$ thrust | the key | into the lock. |

A general grammatical rule would state that the word-class verb, as long as semantic limitations are considered, can always occur in the three structural environments monovalent, divalent and trivalent as verified for the verb PUSH. However, as can be seen, this is not the case and verbs occur with different valency patterns. Valency thus belongs to the lexicon and should be dealt with in dictionaries. This approach is not new as dictionaries in general tend to give grammatical information such as word-class and whether a verb is transitive or intransitive, with the intention of helping users to form correct sentences. However, the current practice is often not sufficient, as it does, for example, not explain why 'thrust' requires a prepositional phrase (or an adverb) to form a grammatically correct sentence.

In valency theory the phrase 'grammatically correct' is often used. However, how is 'grammatically correct' defined? Two options are available: prescriptive and descriptive

[^13]grammars. A prescriptive grammar describes the structure of a language as certain people think it should be used, by laying out rules about what is believed to be the 'correct' or 'incorrect' use of language. This approach is based on personal beliefs and intuition. A descriptive grammar describes the structure of a language as it is actually used by speakers and writers, i.e. it is concerned with the study of the rules or patterns that underlie the use of language. A descriptive grammar is therefore never rigid but an analytical tool based on the analysis of actual utterances where observed findings may change over time or vary between different language communities and genres. Therefore it raises the question of how frequent a use has to be to count as descriptively 'attested' or 'correct'. Since language use is found in corpora, these are a preferred methodological tool for descriptive linguistic analysis. The cut-off point for inclusion or exclusion of occurrences in an investigation is set by the researcher and based on the purpose of the study.

In contrastive studies the local grammar approach will provide a more detailed picture of the similarities and differences between two or more languages than investigation of their general grammar will be able to show. The local grammar approach of valency theory is therefore able to highlight different conventions (syntax and semantics) in the use of words between two or more languages (Engel and Schumacher 1976: 9).

In sections 5.2.2 and 5.2.3 I will compare the local grammar approach of valency theory with two general grammar approaches, transitivity analysis and construction grammar.

### 5.2.2 Valency and Transitivity Analysis

Transitivity is a concept anchored in traditional grammar and primarily concerned with the question 'what can follow a verb?', i.e. verb complementation patterns (Swan 2005: 606). Transitivity analysis is generally understood as belonging to the syntax and distinguishes
whether a verb occurs with a direct object (transitive) or not (intransitive) in a clause. Transitive clauses "can generally be recognised by their surface coding, in English by its place in the constituent order, in German by case marking" (LaPolla et al. 2011: 471). Valency, as stated by Quirk et al. (1985: 1169), "includes the subject of the clause, which is excluded (unless extraposed) from verb complementation", i.e. transitivity analysis. Therefore, a key difference between valency and transitivity is that while valency looks at all sentence elements and is concerned with analysing the structure of the whole clause, transitivity is limited to the specific identification of a direct object in a clause. Furthermore, transitivity analysis cannot be undertaken for other word-classes such as nouns or adjectives, whereas valency analysis can. However, valency analysis applied to nouns or adjectives will be restricted to the investigation of phrases, i.e. noun phrases or adjective phrases, and not whole sentences.

Due to the relatively fixed word order in English "which in the great majority of cases shows without fail what is the [direct] object of the sentence" (Jespersen 1933: 99), transitivity is a popular method for English language analysis. However, as the following discussion will show transitivity analysis has a number of shortcomings, and is less suitable for contrastive analysis than valency theory.

Table 5.2 compares the clause types attributed to transitivity and valency analysis. As can be seen, different

| Clause Patterns |  |  |
| :--- | :--- | :--- |
| TRANSITIVITY |  | VALENCY |
| Quirk et al. <br> (1985:53-54) | Huddleston and Pullum <br> $(2002: 216-218)$ |  |
| Intranstitive <br> SV | Intransitive <br> S-P | Monovalent |
| Copular <br> SVC and <br> SVA | Intransitive <br> (complex) <br> S-P-PC <br> --- | Divalent |
| Monotransitive <br> SVO | Monotransitive <br> S-P-O |  |
| Ditransitive <br> SVOO | Ditransitive <br> S-P-O-O | Trivalent |
| Transitive <br> (complex) <br> SVOC and <br> SVOA | Transitive <br> (complex) <br> S-P-O-PC <br> --- |  |

Tab. 5.2: Comparison of transitivity and verb valency scholars, although describing the same linguistic phenomena, work within different
theoretical frameworks of categorisation. This often makes it difficult to compare the various grammars. For example, Huddleston and Pullum (2002: 215) use the term 'predicator' (P) in their grammar to express the function of verbs in a clause, and reserve the term 'verb' for the category definition of word-class. Quirk et al. (1985: 50) simply refer to verbs (V) in their analysis of clauses. Furthermore, Huddleston and Pullum (2002: 217) use the term 'predicative complement' (PC) for noun and adjective phrases that syntactically function as complements, but semantically have a predicative function. Predicative complements can refer to the subject, as in example 10 for complex-intransitive clauses, or to the object, as in example 11 for complex-transitive clauses:
10) Ed seemed quite competent
11) She considered Ed quite competent.


In contrast, Quirk et al. (1985: 53) categorise example 10 as copular clause and example 11 as complex-transitive clause. Based on Quirk et al. (ibid.) these clauses can also occur with an obligatory adverbial complement $(A)$ instead of the predicative complement (C) as shown in example sentence 12 :
12) I have been in the garden

The term 'complement' is not without difficulties as it is ambiguous. Huddleston and Pullum (2002: 215) note that many grammars restrict the term to non-subject elements. Quirk et al. (1985: $54-55,58$ ) use the term only to refer to an attribute or definition relating to the subject, generally after copular verbs (13), or the object (14).


In contrast, in valency theory the term 'complement' refers to any sentence elements that are 'required' by the verb. Hence, in valency theory example 13 consists of a subject complement and a nominal complement, and sentence 14 of a subject complement, a direct object, and a nominal complement. A definition of the valency complements can be found in section 5.3.2, p 154. To avoid confusion Allerton (1982: 33) suggests using the term 'elaborator' as an alternative to refer to the elements needed for verb valency completion. However, I decided against the use of this term for reasons of recognition, since other authors on valency theory commonly use the term 'complement'. Similarly, 'complement' is also more frequently used than the alternative term 'argument', which is in addition often restricted for reference to semantic completion elements.

The different definitions of the term 'object' in the various grammars can also lead to confusion. While some grammars, e.g. Huddleston and Pullum (2002) or the Collins Cobuild English Grammar (2005), use the term 'object' only for noun phrases following a verb, others, e.g. Quirk et al. (1985) or Biber et al. (2002), state that transitive patterns "require some type of object" (Biber et al. 2002: 121) and that dependent clauses, such as non-finite, that- or whclauses, can be analyzed as fulfilling the function of object. For example, the verb CONSIDER followed by a non-finite ing-clause (underlined) as in sentence 15 would have to be analyzed as intransitive based on Huddleston and Pullum (2002) and as monotransitive based on Quirk et al. (1985). However, both publications would categorise CONSIDER in 15 as divalent.
15) ... we should consider holding the debate at 15.00 hrs followed by ...

Huddleston and Pullum (2002: 220) summarise the issues relating to transitivity analysis as follows:

We emphasise two points about names like 'transitive' and 'monotransitive'. First, the different patterns of complementation define a large number of different verb subcategories,


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but only a few general ones have established names. For example, there is no name for the class of verbs like ignore, wonder, etc., which take interrogative clauses as complement ( He inquired / *believed / *wanted whether it was ready). Second, most verbs allow more than one pattern of complementation. For example, think is not restricted to complex-transitive clauses, but is found in intransitives, in ordinary monotransitives, with a PP (prepositional phrase) headed by of, with a declarative clause as complement, and so on.


Therefore they (ibid.) argue that transitivity analysis is limited in its application and does not cater for comprehensive sentence analysis and, as a result, suggest using valency analysis. They argue that transitivity does not offer the flexibility and intricateness in clause analysis which is possible in valency analysis. Although not spelt out explicitly, Quirk et al.'s (1985) focus on clause structure in their analysis of transitivity is, in my opinion, comparable to valency analysis (see table 5.6, p 155).

In conclusion, it seems that the general differentiation between transitive and intransitive verbs is not sufficient for detailed sentence analysis and is therefore unsuitable for contrastive studies, where differences in language use are often noted in the local grammar of words. Valency theory seems to be a more holistic approach to sentence analysis compared to transitivity analysis.

### 5.2.3 Valency Theory and Constituency Grammar

Another approach to analysing sentence structure is constituency grammar. In this section I will look at the differences between constituency grammar and valency theory, paying particular attention to the benefits and restrictions of each approach with regard to contrastive studies. Constituency analysis is probably the better-known approach as it forms part of Chomsky's (1957) generative grammar. It is based on binary part-whole relationships and shows the linear order of sentence structure, while valency grammar is based on
dependency analysis (Uzony 2003: 235, 236, Welke 2011: 21). According to Engel (1994: 21-23), the main argument in favour of valency is found in this exploration of the link between lexis and grammar, i.e. between connexion and position. Connexion relates to "whether two lexical items can, must or cannot occur together" (ibid.). This means that words and wordclasses cannot be combined randomly but are subject to restrictions. This, in a sense, is equivalent to what Sinclair (1991) described as collocation (lexical connexion) and colligation (grammatical connexion). Connexion does not relate to the proximity or, more generally, the position where these two lexical items occur in a sentence, but to the local grammar of words, i.e. connexions are not necessarily based on the linear order of language production.

The difference in the perception of the relationships between sentence elements between the constituency and the valency approach becomes clear in the visualisation (figures 5.2 and 5.3) of the analysis (example sentence 16) using a tree-diagram, called stemma in valency theory.
16) I believe that we should take a different approach.

16-G) Ich meine, wir sollten einen anderen Ansatz wählen.


Fig. 5.2: Constituency Diagram (phrase analysis) - English


Fig. 5.2a: Constituency Diagram (phrase analysis) - German

As can be seen in figures 5.2 and 5.2a the constituency analysis approach shows the linear word order in the sentence, while the valency analysis approach, figures 5.3 and 5.3 a , shows the structural connexions between the sentence elements.


Fig. 5.3: Valency Analysis (lexical and structural stemma) - English


Fig. 5.3a: Valency Analysis (lexical and structural stemma) - German

The hierarchical binary division of constituency grammar is notable in the visualisation of the tree-diagram (figures 5.2 and 5.2 a ). Every division, called node, allows only two branches. The upper part of the tree is based on endocentric constructions, i.e. phrases and clauses in which the whole phrase or clause is seen as having the same syntactic function as the identified head. At the lowest level, the phrases are resolved in individual word-classes and words. In contrast, the stemma in valency analysis shows the dependency structures of the sentence elements (figures 5.3 and 5.3a). The verb as central element in any sentence is always at the top of the stemma. The classification of the sentence elements, i.e. the complements, is based on their function. Unlike constituency, in valency analysis the number of branches at each node is based on the valency pattern of the respective word, e.g. in the above example the English and the German verbs are divalent (2 nodes). Figure 5.4 shows the stemma for the verb CONSIDER in a trivalent structure for the following example sentence:

[^14]

Fig. 5.4: Valency stemma for trivalent verb

Figure 5.5 shows that this difference in the local grammar of words cannot be expressed in constituency analysis.


Fig. 5.5: Constituency Analysis for trivalent verb

On the other hand, an advantage of constituency grammar is that differences in the linear order of sentence constructions can be shown. For example, in the previously discussed example 16, 'dass' in the subordinate dass-clause (that-clause) is omitted. While in English omission of 'that' in a that-clauses does not involve a difference in word order (figure 5.2), it does in German, as shown in the constituency diagram in figure 5.2 b below. In valency the analysis will be the same with or without the subjunction dass, and the valency stemma will remain unchanged (figure 5.3a).


Fig. 5.2b: Constituency Diagram (phrase analysis) for alternative German sentence structure

It has been shown that both constituency and valency are concerned with the structural aspects of sentence construction. While constituency shows the linear structure, valency is concerned with connexions, i.e. the local grammar of words. Connexions cannot easily be identified in the constituency diagram, unless the assumption is made that a short distance in the tree relates to a strong connexion. This would mean that, for example in sentence 16 "I believe that we should take a different approach", 'take' and 'different' are more likely to cooccur in a sentence than 'take' and 'approach'. However, such an assumption is not viable (Fischer 1997: 21). A search in the BoE corpus for the verb TAKE followed by the noun 'approach' with a span of zero to three words shows that TAKE is followed 1,968 times by the noun 'approach', with a range of adjectives qualifying the noun.

| a | a | different | NODE | to | the | combining |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| take | more | cautious | NODE | and | investing | problem |
| taking | an | disciplined | NODE | with | their | development |
| taken | take | this | NODE | in | its | issues |
| takes | hands | pragmatic | NODE | <p> | his | subject |
| took | taking | same | NODE | towards | dealing | planning |
| more | very | opposite | NODE | than | developing design |  |
| an | took | holistic | NODE | when | building | its |
| wait | taken | conservative | NODE | by | using | comes |
| much | slightly | term | NODE | they | her | question |
| "different". Tot freq:150836. Freq | as coll:143. t-sc:11.9029. MI:7.7560. |  |  |  |  |  |

Fig. 5.6: Collocation picture of TAKE followed by 'approach' (BoE)

The collocation picture (figure 5.6) shows 'approach' as NODE, the search word. The most frequent adjective is 'different' with 143 occurrences as in the phrase 'TAKE a different approach'. On the other hand, TAKE followed by the adjective 'different' with a span of one occurs 871 times in the BoE database. This structure is generally followed by a noun, with 'view' being the most frequent with 164 occurrences and 'approach' the second most frequent with 96 occurrences (figure 5.7).

| to | take | a | NODE | view | to | the |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| have | took | many | NODE | approach | of | its |
| can | taken | on | NODE | route | from | that |
| has | takes | very | NODE | tack | and | different |
| might | taking | two | NODE | line | it | view |
| are |  | from | NODE | forms | but | their |
| may |  | radically | NODE | course | he | year |
| who |  | several | NODE | turn | in | most |
| had |  | three | NODE | form | <p> | each |
| would |  |  | somewhat | NODE | path | they |
| "view". Tot freq:80427. Freq as coll:164. | t-sc:12.7941. MI:10.0372. |  |  |  |  |  |

Fig. 5.7: Collocation picture of TAKE followed by 'different’ (BoE)

Most importantly, however, assuming a stronger connexion between 'TAKE' and 'different' than between 'TAKE' and 'approach' leaves the clause incomplete. The verb 'TAKE' requires an object complement, i.e. a noun phrase, to form a complete syntactic sentence. In comparison, valency stemmas (figures 5.3, 5.3a and 5.4) show these connexions, i.e. the further down a word is in the stemma, the less dependent and therefore the less likely is it to co-occur with a word higher up. Engel (1994: 28) stresses that connexions and their structural order are not inherent in the words themselves, but are, in a way, arbitrarily decided by grammarians. This does not mean 'at random', but Engel wants to express that, since language is not a pure science, the operational procedures to test dependency relations have to be devised by the grammarians and are thus part of their argument or reasoning, which will be discussed in the next section.

### 5.3 Syntactic Valency

### 5.3.1 Complements and Adjuncts

The sentence elements or sentence constituents (Satzglieder) that occur with a verb are divided into two categories:

- complements (Ergänzungen),
these are determined by the verb, i.e. they have to occur with a certain verb in order to form a grammatically correct sentence and
- adjuncts (Angaben),
these are not determined by the governing verb and can occur relatively freely with any verb in any sentence.

The categorisation of complements and adjuncts, central to valency theory, is probably the most discussed issue in valency theory (Welke 1988: 2; Helbig and Schenkel 1975: 31), the difficulty being, as expressed by Herbst (2007: 15), that "the distinction between complements and adjuncts takes the form of a gradient rather than two clearly distinct categories". A key difference is generally said to be that the number of complements is fixed in a sentence depending on the verb, while the number of adjuncts is variable (Engel 1980: 111). This, however, does not help in the classification as the following discussion will show.

The question of obligatory complements, i.e. necessary complements, needs further discussion. What kind of necessity is meant: communicative / informative, semantic or syntactic necessity (Helbig and Schenkel 1975: 31)? It is probably fair to say that from a communicative point of view complements and adjuncts are both necessary. There is generally a reason for conveying (or not conveying) certain information. Semantic and syntactic valencies are partly overlapping, but with a different focus (cf. chapter 4, p 71). According to Fischer (1997: 42) the need for complementation is semantically based, i.e. the complements provide the semantic information, such as agent, patient or beneficiary,


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necessary to form larger semantic units such as, for example, propositions. These semantic roles or functions can be mapped onto syntactic categories. The other view, the one I adopt, is that complements and adjuncts are foremost a syntactic phenomenon, but are subject to semantic restrictions (Baum 1976: 58).


Different tests have been suggested to distinguish between complements and adjuncts, the main ones are the permutation (Umstellprobe, section 5.3.1.1), the substitution or commutation (Ersatzprobe, section 5.3.1.2), the reduction or elimination (Wegstreichprobe, section 5.3.1.3) and the question test (Fragetest, section 5.3.1.4) (Altmann and Hahnemann 2010: 115-118). It has to be noted though, that none of these tests is fully reliable on their own to clarify ambiguous occurrences. For this reason, Storrer (2003: 778) suggests applying a combination of the various test methods for clarification. Furthermore, she (ibid.) points out that the decision whether a sentence element is categorised as a complement or an adjunct is often based on intuition, and justification depends on the valency relation that is being investigated and the valency model being applied. According to Schumacher et al. (2004: 26) the tests are primarily useful in identifying the sentence constituents themselves, which function as a single unit and comprise of single words or phrases.

In the following sections I will look at some tests and their usefulness in contrastive studies, as it is often said that the tests favour case oriented languages and are less suitable for less case oriented languages.

### 5.3.1.1 Permutation test

With the permutation test sentence elements are identified through relocation within the clause. This test works better for German with its liberal word order, which only has the restriction that the verb is in second position, than for English with its relatively fixed word order (Teubert 2007: 234). As can be seen in example sentence 18, taken from the EuroParl
corpus, the German and the English sentences consist of five sentence elements but the German sentence structure is more flexible, i.e. it allows more variations (a-e), than English where only the adjuncts can be relocated in the clause (a-c).

```
18-G) Herr Jonckheer behandelt die mit einer Vergrösserung verbundenen Probleme in seinem
    Bericht sehr gründlich.
18) Mr Jonckheer, in his report, has considered very thoroughly the problems associated
    with enlargement.
```

18a-G) [Die mit einer Vergrösserung verbundenen Probleme] [behandelt] [Herr Jonckheer] [in seinem Bericht] [sehr gründlich]. 18b-G) [In seinem Bericht] [behandelt] [Herr Jonckheer] [die mit einer Vergrösserung verbundenen Probleme] [sehr gründlich]. 18c-G) [Sehr gründlich] [behandelt] [Herr Jonckheer] [die mit einer Vergrösserung verbundenen Probleme] [in seinem Bericht]. 18d-G) [Herr Jonckheer] [behandelt] [in seinem Bericht] [die mit einer Vergrösserung verbundenen Probleme] [sehr gründlich]. 18e-G) [Herr Jonckheer] [behandelt] [sehr gründlich] [die mit einer Vergrösserung verbundenen Probleme] [in seinem Bericht].

18a) [In his report] [Mr Jonckheer] [has considered] [the problems associated with enlargement] [very thoroughly].
18b) [Mr Jonckheer] [has [very thoroughly] considered] [the problems associated with enlargement] [in his report].
18c) [Mr Jonckheer] [has considered] [the problems associated with enlargement], [in his report], [very thoroughly].

Due to the relatively fixed word order in English, with S-V-O (subject - verb - object) as the unmarked form, mobility and optionality are often, but not always, the criteria for adjuncts in English (Quirk et al. 1985: 50-52). At this point it should be noted that CONSIDER is not always translated as BEHANDELN, and that the number and type (complements and adjuncts) of sentence elements does not always correspond in the translation. This will be discussed in greater detail in the case study (chapter 7, p 221).

### 5.3.1.2 Commutation test

The substitution or commutation test replaces the sentence elements with alternative words and phrases. Substitution is only possible with syntactic (and semantic) elements that belong to the same category. The test therefore helps to identify words and phrases that belong to the same category or exchange class (Altmann and Hahnemann 2010: 116).

Engel and Schumacher (1976: 24) suggest anaphorisation as a guide to identifying complements. Anaphorisation can be seen as a sub-category of the commutation test. Every
sentence element can be reduced to an appropriate pronoun or adverb. Thus, the underlined complements in 18 can be replaced as shown in 18d.
18) Mr Jonckheer, in his report, has considered very thoroughly
the problems associated with enlargement.
18d) He, in his report, has considered very thoroughly them / this / it.

This process is equally suitable for German and English clauses, which makes it a useful tool for comparative research for these languages (Fischer 1997: 50).

```
18-G) Herr Jonckheer behandelt die damit verbundenen Probleme in seinem Bericht sehr
    gründlich.
18f-G) Er behandelt diese/sie in seinem Bericht sehr gründlich.
```

Unfortunately, adverbs of time and place also represent anaphora although these refer to adjuncts. For example 'in his report' can be substituted with the anaphor 'there', and 'in seinem Bericht' with 'dort'. However, since other members of their exchange class are not prohibited for syntactic reasons, the prepositional phrase should be classified as an adjunct (Fischer 1997: 48), as exemplified in 18e to 18 g .

18e) Mr Jonckheer, there, has considered very thoroughly the problems associated with enlargement.
18f) Mr Jonckheer, previously, has considered very thoroughly the problems associated with enlargement.
$18 \mathrm{~g}) \mathrm{Mr}$ Jonckheer, in earlier negotiations, has considered very thoroughly the problems associated with enlargement.

Personal pronouns denote different persons / things to the subject and object position. As can be seen in table 5.3 the German pronouns show to a large extent differences in the inflection between person and case. It can also be noted that, although English is less case oriented, the English pronouns are still partly inflected. Structural differences in sentence formation based on case are therefore more easily identifiable in German than in English, as demonstrated by Helbig and Schenkel (1975: 12) in examples 19 to 21.

| SINGULAR |  | $2^{\text {nd }}$ person |  | $3{ }^{\text {rd }}$ person |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nominative | ich/ I | $\begin{aligned} & \mathrm{du} / \\ & \text { you } \end{aligned}$ | Sie/ <br> you | er/ he | $\begin{aligned} & \hline \text { sie/ } \\ & \text { she } \end{aligned}$ | $\begin{aligned} & \hline \text { es/ } \\ & \text { it } \end{aligned}$ |
| Genitive ${ }^{15}$ | meiner <br> / mine <br> (of <br> mine) | deiner/ <br> yours <br> (of <br> yours) | ihrer/ <br> yours <br> (of <br> yours) | seiner/ his (of his) | ihrer/ hers (of hers) | seiner/ <br> (of it) |
| Dative | mir/ <br> me <br> (to me) | dir/ <br> you <br> (to you) | Ihnen/ you (to you) | ihm / <br> him <br> (to him) | ihr/ her (to her) | $\begin{aligned} & \text { ihm / } \\ & \text { it } \\ & \text { (to it) } \end{aligned}$ |
| Accusative | mich / <br> me | dich/ <br> you | Sie/ <br> you | $\begin{aligned} & \text { inn/ } \\ & \text { him } \end{aligned}$ | sie/ <br> her | es/ it |
| PLURAL | $\begin{aligned} & \hline 1^{\text {st }} \\ & \text { person } \\ & \hline \end{aligned}$ | ${ }^{\text {nd }}$ person |  | $3{ }^{\text {rd }}$ person |  |  |
| Nominative | wir/ we | ihr/ you | Sie / you | sie / <br> they |  |  |
| Genitive | unser/ <br> ours <br> (of <br> ours) | euer/ <br> yours <br> (of <br> yours) | Ihrer/ <br> yours (of yours) |  |  |  |
| Dative | uns/ us <br> (to us) | euch/ you <br> (to you) | Ihnen/ you (to you) |  |  |  |
| Accusative | uns/ us | euch/ you | sie/ <br> you | sie/ them |  |  |

Tab. 5.3: Comparison of personal pronouns in German and English

19 ) I see him.
19-G) Ich sehe ihn. accusative
20 ) I help him.
20-G) Ich helfe ihm. dative
21 ) I remember him.
21-G) Ich erinnere mich seiner / an ihn.
genitive / prepositional phrase

As can be seen, the German TEs for the English pronoun 'him' can appear in three different cases, which are differentiated by the pronouns.

Nevertheless, anaphorisation is
particularly useful in identifying sentence elements which function as subject or object but are not noun phrases as demonstrated in examples 22 for an object complement.
22) France and Germany considered imposing trade restrictions on British beef.

22a) They considered it.
22-G) Frankreich und Deutschland erwogen Handelsbeschränkungen gegen britisches Rindfleisch einzuführen.

22a-G) Sie erwogen es.

In summary, the commutation test works equally well in English and German for identification of sentence elements. Its specific application in the identification of case through the use of anaphors is generally more suitable for case inflected languages, but can, nevertheless, be applied to less case inflected languages such as English.

[^15]
### 5.3.1.3 Elimination test

Through elimination the minimum elements that are required in a grammatically correct sentence can be identified. These are, according to Helbig (1982), the obligatory elements of a sentence, and result, as I would term it, in the smallest clause possible for a given verb, as shown for sentence 18.

```
18) Mr Jonckheer, in his report, has considered very thoroughly the problems zssociated with
    enlargement.
18h) Mr Jonckheer has considered the problems.
18-G) Herr Jonckheer behandelt die mit einer Vergrösserung verbundenen Probleme in seinem
    Bericht sehr gründlich.
18g-G) Herr Jonckheer behandelt die Probleme.
```

Whether a sentence is grammatically correct or not is often decided based on native speaker competence. However, as pointed out by Engel and Schumacher (1976: 3) native speakers differ in their intuitions of acceptability. Nikula (1976: 28) and Fischer (1997: 47) both note that acceptability of the remaining sentence structures after elimination may be influenced by a variety of factors such as word order, tense, comparative structures and so on.

In traditional valency theory, a distinction is made between obligatory and facultative complements. According to Storrer (1996: 226) obligatory complements need to be realised, i.e. be included in the sentence structure, whereas facultative complements can be omitted in certain circumstances. In contrast, adjuncts can be relatively freely added or deleted in a sentence. Nevertheless, the distinction between facultative complements and adjuncts is not always clear and appears to be arbitrary at times. Helbig and Schenkel (1975: 37) argue that the differentiation is based on the differences between the deep structure and the surface structure of sentences. However, this is a discussion I do not want to pursue in this thesis as the analysis of deep structure is, in my opinion, based on intuitive interpretation and therefore subjective. Complement analysis and its justification in this research is based on observable so-called surface structure.

The circumstances under which complements can be omitted are either context dependent or context independent (Fischer 1997: 46, Nikula 1976: 15, Helbig 1992: 106). With context dependent ellipsis the missing word or complement can be retrieved from the wider context, i.e. it was mentioned previously. This is exemplified in examples 23 and 24 .

```
23) We are all waiting for an answer.
23-G) Wir warten alle auf eine Antwort.
24) Today, you say to us that we still have to wait.
    (But wait for what?)
24-G) Heute sagen Sie uns, man müsse noch warten.
    (Aber worauf denn eigentlich?)
```

Both English WAIT and its German equivalent WARTEN are generally followed by a preposition 'for' or 'auf' respectively (23). The prepositional phrase can only be omitted when it can be deduced from the wider context (24). Therefore the prepositional phrase is seen as a facultative complement for the verbs WAIT and WARTEN.

Context independent ellipsis occurs when the object can be retrieved from the meaning of the verb, as for example with the verb SMOKE and its equivalent RAUCHEN.

```
25) I should also like to express my respect, however, for those who do smoke, and to defend
    their right to smoke.
25-G) Ich möchte aber auch denjenigen, die rauchen, meine Achtung bekunden und an ihr Recht zu
    rauchen gemahnen.
26) My husband smokes 60 cigarettes a day.
26-G) Mein Mann raucht 60 Zigaretten pro Tag.
```

The verbs SMOKE and RAUCHEN are strongly associated with cigarettes in Western cultures. Hence, the object, i.e. the noun 'cigarette' is often omitted (25). Context independent ellipsis does not alter the meaning of the sentence, but might shift its focus (Fischer 1997: 47) as shown in example sentence 26.

Some dative structures also cause difficulties and are classified differently by different scholars. For example, in 27 the dative 'the allies' and 'den Verbündeten' can be eliminated without making the sentence ungrammatical or changing the meaning in a major way.
27) America's President Bush has promised the allies close consultation.

27-G) Der amerikanische Präsident Bush hat den Verbündeten enge Konsultationen zugesagt.

Therefore, Engel (2004: 99) classifies these so-called free datives as facultative complements in close relation to traditional case grammar. He justifies the complement status with the fact that these do not appear with all verbs, but only with a subclass of verbs. The commutation test would also identify these elements as a complement since substitution with a personal pronoun is possible.

27a) America's President Bush has promised them close consultation.
27a-G) Der amerikanische Präsident Bush hat ihnen enge Konsultationen zugesagt.

Helbig and Schenkel (1975: 39), on the other hand, classify free datives as adjuncts and argue that the criterion for adjuncts is that these are reduced sentences or dependent clauses, which can be transformed back into their individual version.

27b) America's President Bush has promised close consultation. The close consultation was promised to the allies.
27c) America's President Bush has promised close consultation to the allies.
27b-G) Der amerikanische Präsident Bush hat enge Konsultationen zugesagt. Die Konsultation wurde den Verbündeten zugesagt.

As I see it, the key issue in this discussion is whether case theory or syntactic structure is applied in the decision. Based on case theory all datives should be categorised as complements. This view is also closer to Tesnière (1980), whose 'actants' represent complements although they may not be needed syntactically. Within this discussion, as noted by Allerton (1982: 66-67), the question of how occurrences where a "verb participates in a number of different grammatical structures" should be addressed. Do the different occurrences constitute different lexical entries, does the verb have multiple class
membership, i.e. several valency structures, or is there only one valency sentence structure for a verb from which syntactic transformation can be proposed? Furthermore, it should be noted that classification based on case or syntactic structure, i.e. dependent clauses, is not one of correct or incorrect analysis, but depends on the view taken, as the following discussion will show.

The transformation into two sentences to distinguish between complements and adjuncts is often criticized for not being applicable to all adjuncts (Engel and Schumacher 1976: 20) or is sometimes ambiguous (Engel 2004: 146). For example, in order to classify 'the loudest' in 28 as an adjunct, it is necessary to introduce a new subject in the second sentence as demonstrated in 28a (see also Helbig 1982: 28).

```
28) A minority in this Parliament shouts the loudest.
28a) A minority shouts loud. > A minority shouts. *This happens loud.
    > A minority shouts. The shout / cry is loud.
28-G) Eine Minderheit in diesem Parlament schreit am lautesten.
28a-G) Eine Minderheit schreit laut. > Eine Minderheit schreit. *Das geschiet laut.
    > Eine Minderheit schreit. Das Schreien / der Schrei ist laut.
```

On the other hand, categorisation of 'the loudest' as facultative complement is also viable based on the substitution test. As shown in 28b, substitution of 'the loudest' with 'so' or 'in this manner', classifying it as adjectival complement, is possible.

28b) A minority in this Parliament shouts so / in this manner.
28b-G) Eine Minderheit in diesem Parlament schreit so / auf diese Art und Weise.

Another categorisation issue is represented in examples 29 and 30. It is notable that eliminating the sentence elements 'to be a failure' and 'als Misserfolg' will result in a grammatically correct sentence, but a change of meaning seems to take place.

```
29) I consider it to be a failure.
29a) I consider it.
29-G) Ich betrachte ihn als Misserfolg.
29a-G) Ich betrachte inn.
```

30) The rapporteur considers the rail industry as an irritating state monopoly.

30a) The rapporteur considers the rail industry.
30-G) Der Berichterstatter betrachtet die Eisenbahnunternehmen als ein hinderliches Staatsmonopol.
30a-G) Der Berichterstatter betrachtet die Eisenbahnunternehmen .

Due to change in reading it is not viable to classify the to-inf clause and the participle phrases as facultative complements. The implications are important in applied linguistics, for example in dictionary compilation. Is the meaning change sufficient to justify a separate entry, i.e. CONSIDER and BETRACHTEN with two entries, one with a divalent structure and one with a trivalent structure? Or can the different readings be combined under one entry?

Prepositional phrases are also ambiguous as they can either function as adjuncts or complements (Fischer 1997: 45, Allerton 1982:89, Halliday 1994: 152-161) as shown in examples 31 to 33 .
31) Eighty per cent of people live in towns.

31a) *Eighty per cent of people live.
31b) *Eighty per cent of people live. This happens in towns.
31c) *Eighty per cent of people live. ?The life is in towns.
31-G) 80 Prozent der Menschen wohnen in Städten.
31a-G) * 80 Prozent der Menschen wohnen.
31b-G) * 80 Prozent der Menschen wohnen. Das geschieht in Städten.
$31 c-G)$ * 80 Prozent der Menschen wohnen. Das Wohen ist / geschiet in Städten.
32) Women work in several households.

32a) Women work.
32b) ?Women work. This happens in several households.
32c) Women work. The work takes place / is in several households.
32-G) Frauen arbeiten in mehreren Haushalten.
32a-G) Frauen arbeiten.
32b-G) ?Frauen arbeiten. Das geschiet in mehreren Haushalten .
32c-G) Frauen arbeiten. Das tun sie in mehreren Haushalten .
33) I call for greater involvement of the European Parliament in my report.

33a) I call for greater involvement.
33b) I call for greater involvement. It is in my report that I call for greater involvement.
33-G) In meinem Bericht befürworte ich eine stärkere Beteiligung des Europäischen Parlaments.
33a-G) Ich befürworte ich eine stärkere Beteiligung des Europäischen Parlaments.
33b-G) Ich befürworte ich eine stärkere Beteiligung des Europäischen Parlaments. Das tue ich in meinem Bericht.

In sentence 31 the prepositional phrase represents an obligatory complement since deletion leads to an ungrammatical sentence. Further confirmation is that transformation into two sentences is not possible (31b and c). But how should the prepositional phrases in sentences 32 and 33 be classified? Do the prepositional phrases represent a facultative complement or an adjunct? 32a and 33a show that monovalent use is possible. Nikula (1976: 29) notes that a transformation of facultative prepositional complements into two sentences does not come up with similarly convincing results as for obligatory prepositional complements. As can be seen in 32 b and c the transformations are grammatically acceptable, classifying the prepositional phrases as adjuncts. However, from a communicative and pragmatic point it can be argued that the clauses 'women work' or 'Frauen arbeiten' are relatively rare as their communicative information is limited, and the purpose of the clause is to tell us where they work. Therefore classification as a facultative complement would be justified. Furthermore, as seen in figure 5.8 the collocation picture (BoE) by raw frequency shows that the preposition 'in' is relatively frequent for the node verb WORK. Thus, classification as a facultative complement can be justified on usage criteria.

| the | the | to | NODE | in | the | the |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| and | and | and | NODE | with | a | and |
| to | of | who | NODE | on | and | a |
| of | i | it | NODE | for | to | to |
| a | to | $t$ | NODE | out | in | in |
| it | he | their | NODE | as | with | of |
| that | have | he | NODE | at | it | for |
| i | it | was | NODE | and | for | i |
| in | that | the | NODE | class | that | it |
| he | who | been | NODE | to | hard | <p> |

Fig. 5.8: Collocation picture by raw frequency for the node verb WORK

On the other hand, for sentence 33 a dependency of the prepositional phrase on the verbs 'CALL for' and BEFÜRWORTEN respectively cannot be established in either language (see also example sentence $18, \mathrm{p} 144$ ), therefore it constitutes an adjunct.

The elimination test is, from a pragmatic point of view, an interesting tool for language analysis as the elimination of sentence elements will result in the smallest grammatically
correct communicative unit. As has been shown it is not able to deal with the convention in valency theory of distinguishing between facultative complements and adjuncts and should therefore only be used in combination with other tests.

### 5.3.1.4 Question test

The question test aims to identify the cases. The interrogative forms relating to case identification do not work as well in English as they do in German, as shown in table 5.4.

| Case | English |  | German |  |
| :--- | :--- | :--- | :--- | :--- |
| Nominative | Who or what? | 34-E) The woman sings. | Wer oder was? | 34-G) Die Frau singt. |
| Genitive | Whose or <br> of+ wh? | 35-E) I remember his <br> promise. | Wessen? | 35-G) Ich erinnere mich seines <br> Versprechens. |
| Dative | Whom or <br> to whom? | 36-E) He writes to the girl. | Wem? | 36-G) Er schreibt dem <br> Mädchen. |
| Accusative | Who(m) or what? | 37-E) He sends a message. | Wen oder was? | 37-G) Er verschickt eine <br> Nachricht. |

Tab. 5.4: Question test for identification of case complements in English and German

There is no genitive case complement as such in English to the verb (Gross 1998: 104; Fischer 1997: 76). In English the genitive is restricted to possessives, either to possessive pronouns as in 'his promise', the genitive ' $s$ ' as in 'Peter's book', or it is realised as a prepositional complement with 'of' as in 'the book of Peter'. Therefore, the genitive does not form a verb valency complement (Satzergänzung) in English, but is part of a noun phrase. Regarding valency complement classification this means that only in German does the whole noun phrase following the verb form a genitive complement, while in English it is generally realised as an accusative. This becomes clear when changing the pronouns into articles, as shown in examples 35 and 35 a where the German genitive complement is realised with an accusative, i.e. an object complement, in English.

| 35) I remember his promise. | $>$ Whose promise do I remember? |
| :--- | :--- |
|  | $>$ *Whose do I remember? |
| $35 \mathrm{a})$ | $>$ What do I remember? |
|  | I remember the promise. |


| 35-G) $\quad$ Ich erinnere mich seines Versprechens . | $>$ Wessen Versprechens erinnere ich mich? |  |
| :--- | :--- | :--- |
|  |  | $>$ Wessen erinnere ich mich? |
| $35 \mathrm{a}-\mathrm{G}) \quad$ Ich erinnere mich des Versprechens. | $>$ Wessen erinnere ich mich |  |

The interrogative forms, however, indicate that cases do exist in English, although they are mostly not morphologically marked. Anaphorisation with personal pronouns (see commutation test) and the question test can help in identifying cases in English and German as shown in example 38 for the verb CONSIDER.


The approach taken in this study is that classification as a complement is in first instance based on the frequency of occurrences in the corpora, i.e. frequent sentence elements which occur with a verb are understood as constituting a complement (Ergänzung). Anaphorisation is then used for the classification of the complements. Verbs can occur in several valency sentence structures. The last point seems to be especially important in a contrastive study which intends to investigate structural differences between languages regarding meaning, i.e. translation equivalence, and sentence formation. At this point it is important to mention that the chosen approach for identifying the valency complements depends on the languages investigated. For example, Bianco (1988: 41, 46), who conducted a comparative study for German and Italian, noted that for Italian the question test is better suited since certain anaphors can realise various complements in Italian.

### 5.3.2 Comparison of English and German Valency Complements

A number of different verb complement types can be identified. Table 5.5 ( p 155 ) gives an overview of the most widely used valency complement types in German and English. It has to be noted though, that there is not a strict one-to-one relationship or congruence between the valency types as table 5.5 may imply, since "the various models of valency differ in their classificational approach to complements" (Herbst et al. 2004: xxv) and that there is an array of different valency complement categorisations around. The ones listed in table 5.5 are the most established. For this reason, Emons' (1974) five valency types for English are not included, as his classification, based on principles of commutation, varies strongly from the classification used by other linguists. Herbst et al.'s (2004) classification of complementation patterns used in the Valency Dictionary of English (VDE) are also not included as these are based on word or part-of-speech classes (cf. section 4.2, p 73). However, Quirk et al.'s (1985: 1171) verb complementation patterns for English are included in the comparison as they can be matched to valency complements.

As can be seen in table 5.5, four main categories can be distinguished by type, these are case complements, adverbial complements, predicative complements and verbal complements. The sub-classification within these main categories, however, varies between the different scholars and the languages. In addition, the following discussion of the complement types within the four main categories will show that there is no congruence between the category (and function) and the realisation form. For example, a prepositional phrase may represent an object complement, an adverbial complement, e.g. a location, or may function as an adjunct, i.e. the prepositional phrase is not part of the valency of a word.

In the following I will discuss the four main categories and their identification criteria in more detail. It will be shown that the replacement of sentence elements with an anaphor is often sufficient for identification of a complement type.

|  | Engel and Schumacher (1976: 26) | $\begin{aligned} & \text { Engel } \\ & \text { (1994: 150) } \end{aligned}$ | Schumacher et al (2004: 30) | $\begin{aligned} & \text { Fischer } \\ & (1997: 50) \end{aligned}$ | $\begin{aligned} & \hline \text { Allerton } \\ & \text { (1982: 145- } \\ & \text { 147) } \\ & \hline \end{aligned}$ | Quirk et al. (1985: 1171) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | German |  |  | English |  |  |
| Case complements | Nominativergänzung ( $\mathrm{E}_{0}$ ) | Subjekt ( $\mathrm{E}_{\text {sub }}$ ) | Nominativergänzung (NomE) | Subject | Subject | -- |
|  | Akkusativergänzung ( $\mathrm{E}_{1}$ ) | Akkusativergänzung ( $E_{\text {akk }}$ ) | Akkusativergänzung (AkkE) | Direct complement | Object | SVO Noun phrase as O (with passive) |
| Objects |  |  |  |  |  | SVO that-clause / wh-clause / wh-infinitive / toinfinitive (-S) / ing-clause (-S) / to-infinitive (+S) / ing-clause ( +S ) as O |
|  |  |  |  |  | Objoid | SVO Noun phrase as O (without passive) |
|  | Genitivergänzung ( $\mathrm{E}_{2}$ ) | Genitivergänzung ( $\mathrm{E}_{\text {gen }}$ ) | Genitivergänzung (GenE) | -- | -- | -- |
|  | Dativergänzung ( $\mathrm{E}_{3}$ ) | Dativergänzung ( $\mathrm{E}_{\text {dat }}$ ) | Dativergänzung (DatE) | Indirect complement | Indirect object | SVOO Noun phrases as $\mathrm{O}_{\text {I }}$ \& $\mathrm{O}_{\text {D }}$ |
|  |  |  |  |  | Oblique object |  |
|  |  |  |  |  | Indirect objoid |  |
|  | Präpostionalergänzung (E4) | Präpositivergänzung ( $\mathrm{E}_{\text {prp }}$ ) | Präpositivergánzung (PrápE) | Prepositional complement | Prepositional object | SVO (Prepositional verbs) SVOO With prepositional O |
|  |  |  |  |  | Prepostional objoid |  |
| Adverbial complements | Situativergänzung ( $\mathrm{E}_{5}$ ) | Situativergänzung $\left(E_{\text {sit }}\right)$ | Adverbativergänzung (AdvE) <br> - Lok Stat <br> - Lok Dir <br> - Temp Punkt <br> -Temp Duration <br> - Mittel <br> - Art und Weise <br> - Menge <br> - Zweck <br> - Zusammenhang | Situational complement | Adverbial elaborator | SVA Adverbial complementation SVOA O + adverbial |
|  | Direktivergänzung ( $\mathrm{E}_{6}$ ) | Direktivergänzung ( $\mathrm{E}_{\text {dir }}$ ) | - Temp Punkt <br> -Temp Duration <br> - Mittel <br> - Art und Weise <br> - Menge <br> - Zweck <br> - Zusammenhang | Directional complement |  |  |
|  |  | Expansivergänzung ( $\mathrm{E}_{\text {exp }}$ ) |  | Expansive complement |  |  |
| Predicative complements | Einordnungsergänzung (E7) | Nominalergänzung ( $\mathrm{E}_{\text {nom }}$ ) | Prädikativergänzung (PrádE) | Nominal complement | Predicative as-Predicative | SVC Nominal Cs SVOC Nominal Co |
|  | Artergänzung ( $\mathrm{E}_{8}$ ) | Adjektivalergänzung ( $\mathrm{E}_{\text {adj }}$ ) |  | Adjectival complement |  | SVC Adjectival Cs SVOC Adjectival Co |
|  |  |  |  | Modificational complement |  |  |
| Verbal complements | Ergänzungssatz ( $\mathrm{E}_{9}$ ) | Verbativergänzung (Ever) | Verbativergänzung (VerbE) | Verbal complement |  | SVOA O + to-infinitive / bare infinitive / ingclause / ed-clause <br> SVOO $\mathrm{O}_{\mathrm{l}}+$ that-clause / wh-clause / whinfinitive clause / to-infinitive |
|  |  |  |  |  | Adverb limiter |  |

Tab. 5.5: Comparison of valency types in German and English

### 5.3.2.1 Case complements

As shown in table 5.5, in German classification by morphological case marking is typical, while in English the distinction by function (subject, (direct) object and indirect object) is preferred. This works relatively well, as in the majority of occurrences the cases can be matched to a respective function. Fischer (1997: 72) notes that the nominative is often equivalent to the subject in English, the accusative generally corresponds to the direct object (ibid. p 76), and the dative often matches the indirect object (ibid. p 79). However, Gross (1998: 104) warns that along with the large number of congruent equivalent structures, variations do occur, as demonstrated in the following examples 39 to 44 .

| GERMAN | ENGLISH |  |  |
| :--- | :--- | :--- | :--- |
| 39-G) $\underline{\text { Mir geht es gut. }} \underline{\text { dative }}$ | 39) $\underline{I}$ feel fine. / $\underline{\text { I am doing fine. }}$ | subject |  |
| 40-G) Das schadet den Bäumen. | dative | 40) That damages the trees. | direct object |
| 41-G) Sie nahm $\underline{\underline{i h m} \text { den Ball ab. }}$ | dative | 41) She took the ball off him. | prepositional object |
| 42-G) Er schnitt $\underline{\text { ihr }}$ die Haare. | dative | 42) He cut her hair. | possessive pronoun |
| 43-G) Nichts wurde uns erklärt. | dative | 43) Nothing was explained to us. | prepositional object |
| 44-G) Sie lehrte $\underline{\text { ihn Tennis. }}$ | accusative | 44) She taught him tennis. | indirect object |

Therefore, in a contrastive comparison generalisations cannot be assumed and each occurrence needs to be analysed individually (cf. section 4.4, p 86).

There is also a difference in passive constructions between English and German. Traditionally passives are seen as a transformation of active clauses since passivisation does not change the number of valency complements a verb can take (Engel 1988: 189). Since not all verbs can occur in the passive, the knowledge of a verb therefore includes information of its valency complements and on whether it can occur in a passive structure. In order to distinguish between objects that can take subject position, and those which cannot, Allerton (1982: 82) suggests the term 'objoid' for objects of non-passivisable verbs. The suggestion is viable for valency sentence analysis in English which has only one passive form, but it raises some questions for the German analysis, since German distinguishes
between two passive forms, the 'werden'-passive and the 'bekommen'-passive. In order to express this in the terminology a further distinction, e.g. 'objoid 1' and 'objoid 2', would need to be introduced. In an attempt to keep the number of possible complement types to a minimum I decided not to distinguish between objoids and objects.

Allerton (ibid. p 104) also suggests that trivalent verbs should differentiate between structures that can be reordered using a prepositional phrase as they include a direct and an indirect object (45) and those that cannot as they contain an object and an 'oblique’ (46).

| 45) | Oliver | took in | Elizabeth irect objec | some flowers. direct object | 45-a) | Oliver took some flowers to/for Elizabeth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 46) | Oliver | forgave ob | me que objec | my behaviour. direct object | 46-a) | *Oliver forgave my behaviour to/for me. |

As can be seen in example 46-a, an 'oblique' object cannot be expressed with a prepositional phrase. However, as German is case-marked its sentence structure is more flexible and reordering of trivalent verbs is generally possible, i.e. 'oblique' objects in Allerton's sense are extremely rare. More importantly, the term 'oblique case' refers in German grammatical analysis to all non-nominative cases (Duden 2009: 391). The term 'oblique' is thus used differently between the two languages and introduction into a comparative study may lead to confusion with regard to its meaning.

Quirk et al.'s (1985: 1171) complementation categories demonstrate how a variety of realisation forms (that-, wh- and non-finite clauses) can be matched to valency types. These can function as subject or as object and can be identified through anaphorisation, i.e. replacement with a personal pronoun (cf. section 5.3.1.2, p 143).

Some prepositional complements can also function as a subject or an object and are therefore included in the category of case complements in valency theory. However, as
replacement with a personal pronoun is not possible they are often classified as a category of their own (Fischer 1997: 80). Prepositional complements are marked in that the preposition generally cannot be exchanged with another preposition and is therefore devoid of a lexical meaning of its own, but functions as a pure marker (Allerton 1982: 16). The anaphora are two-word phrases, i.e. a preposition plus a personal pronoun, e.g. 'an ihn / sie / es' or 'of him / her / it', as demonstrated in example 47. In German commutation with a prepositional adverb, e.g. 'daran', is also possible.


The distinction of prepositional phrases functioning as prepositional complements, adverbial complements or adjuncts is not always clear-cut and classification depends to some extent on the personal interpretation of the linguist.

Finally, it should be noted that morphological case markings in German are not only dependent on the function a sentence element may have, but are also controlled by prepositions. This is humorously expressed by Twain (1963:8) as "every time I think I have mastered these confusing 'cases', a seemingly insignificant preposition introduces itself into my sentence, clothed with an awful and unsuspected power". Case marking is thus not only part of the valency complement patterns of a verb in German, but, in a way, also part of the valency complement patterns of prepositions. Nevertheless, as the case study in this thesis is concerned with verb valency, only cases relating to the verb are investigated.

### 5.3.2.2 Adverbial complements (Adverbialergänzung)

The prepositions in adverbial complements are generally exchangeable and therefore have a meaning of their own (Fischer 1997: 80). Example sentence 48 includes two prepositional phrases, which can be analysed as expansive and situational complement respectively in both languages:

```
48-G) Wenn jeder Kollege seine Redezeit einfach auf das Doppelte ausdehnen würde, dann wären
    wir erst um vier Uhr morgens fertig.
        - expansive complement 'auf das Doppelte'
            a) Jeder Kollege dehnt seine Redezeit auf / um das Doppelte aus.
        Anaphor: b) Jeder Kollege dehnt seine Redezeit so lange aus.
        - situational complement 'um vier Uhr morgens'
            c) Wir wären erst um / gegen / nach vier Uhr morgens fertig.
        Anaphor: d) Wir wären erst dann fertig.
48) If all the Members speak for twice as long as their given time, we shall be here
    until 4 a.m.
        - expansive complement 'for twice as long'
            e) All the Members speak for / about twice as long as their given time.
        Anaphor: f) All the Members speak so long.
        - situational complement 'until 4 a.m.'
            g) We shall be here until / up to / after 4 a.m.
        Anaphor: h) We shall be here until then.
```

As can be seen, unlike prepositional complements, the prepositions are exchangeable, although the number of possibilities in the above instances is very limited in both languages, and thus carry lexical meaning.

Table 5.5 ( p 155 ) shows that the sub-categorisation of adverbial complements can be quite detailed as for example by Schumacher et al. (2004) who identify nine different adverbial complements, or subsumed into one category as for example by Allerton (1982). Adverbial complements can be anaphorised by phrases containing an adverb as shown in 48b, d, f and h (Engel 2009: 134).

The notable difference in Allerton's (1982: 91-93) categorisation is the unique inclusion of an 'adverb limiter' complement for phrasal verbs (ibid. pp 91-93). He argues that the adverb following the verb in a phrasal verb structure such as 'stand down', or 'hang about' plays a special role as the meaning of the phrasal verb is idiomatic and movability of the adverb is restricted compared to adverbial complements. The issue addressed here, is whether the single word should form the smallest unit for the analysis or if multi-word units, such as phrasal verbs, should be seen as the valency carrier. Engel (2009: 149) argues that one aim of syntax is to structure the lexicon and, in doing so, to keep the vocabulary of a language within a manageable level. Following this argument it is preferable to take the single word as basis for structural analysis. However, I argue that in a contrastive analysis between languages the unit of meaning, paraphrased as translation equivalent, should also be the unit of analysis. The following case study (chapters 6 and 7 ) follows this principle.

### 5.3.2.3 Predicative complements (Prädikativergänzung)

The most common anaphora for predicative complements are so / so, it / es, in this manner / auf solche Art. Predicative complements occur mainly, but not exclusively, with copular or linking verbs (Engel 2009: 148). According to Fischer (1997: 87) the number of copular verbs is smaller in German than in English, and therefore predicative complements are more frequent in English than in German. Predicative complements identify or characterise a participant, either the subject (49) or the object (50) in the clause, and are realised either by an adjective phrase, adjectival complement (49), or a noun phrase, nominal complement (50).

```
49) The situation there is extremely volatile.
49-G) Die Lage in Indonesien ist äußerst instabil.
50) I consider Doha a success.
50-G) Ich glaube Doha war ein Erfolg.
```

Often, as in the above examples, the adjectival and nominal complements are equivalent in English and German. However, differences may occur as shown in sentence 51, where the English adjectival complement occurs as nominal complement in the German version, and 52, where the German clause includes a dass-clause (that-clause):

```
51) To renew the embargo is extremely dangerous.
51-G) Eine Verlängerung des Embargos birgt eine sehr große Gefahr.
52) I consider this very important.
52-G) Ich glaube aber, dass das sehr wichtig ist.
```

Allerton (1982: 85-86) and Fischer (1997: 132) note that adjectival complements are the only adjectives which function as complement. Thus, in sentence 53 (Fischer ibid.), 'sober' is analysed as an adjunct, and the verb ARRIVE classified as a monovalent verb.
53) He arrived sober.

Yet, substitution of the adjective 'sober' by the anaphors for adjectival complements can be applied as shown in 53-a, which justifies classification as adjectival complement.

53-a) He arrived so / in this manner.

In the following case study, as mentioned previously, it is assumed that verbs can have several valency sentence structures representing the same or at least a very similar meaning. Furthermore, qualification as a complement is based on the number of occurrences in a corpus. Therefore, if a verb frequently occurs accompanied by an adjective or adverb this will be analysed as a complement. Otherwise, the only parameters for distinguishing between complements and adjuncts would be what has been said before, i.e. previous publications, or (subjective) intuition. However, as mentioned by Helbig (1992: 77), intuition should not be the sole basis of a grammar. A grammar ought to be based on operational methods and tests which need to be documented and reproducible.

Engel (2009: 134) and Fischer (1997: 89, 141) distinguish a modificational complement within the predicative complements. Modificational complements describe the verb, as demonstrated in example 54.
54) The Commission must begin to treat Mediterranean farmers fairly.

54-G) Die Kommission muß die Landwirte im Mittelmeerraum von nun an gerecht behandeln.

Unlike English, where the modificational complement is typically realised through an adverb, the German equivalent is generally realised by an adjective (Engel 2009: 147).

Allerton's (1982: 110) categorisation of valency complement types is the only one in table 5.5 which specifically distinguishes the particle 'as' as a predicative complement (55).
55) We consider it as a general principle.

55-G) Wir betrachten es als einen allgemeinen Grundsatz.

The particle 'as' (als, wie) is generally treated as a variation of adjectival and nominal complements (Fischer 1997: 138). However, Allerton (1982: 110) argues that "there is only a limited overlap of verbs between the two structures", i.e. a subcategory of verbs preferably occurs with the particle 'as' and a subcategory of verbs occurs just with an adjectival or nominal complement, and that "therefore the two structures must be considered separately". Amongst German linguists Heringer (1970: 202-205) is one of the few who also classifies 'als' and 'wie' predicative structures separately (cf. section 6.2.4.2, p 180).

### 5.3.2.4 Verbal Complements (Verbativergänzung)

The verbal complement is always a clause in English and German. Verbal complements can be distinguished from subject and object complements which are realised as a clause through anaphorisation. As can be seen in example 56 verbal complements are generally substituted by the phrases 'it happen' / 'es geschehen', 'it be' / 'es sein' or 'that it is so' / 'dass es so ist'.

Quirk et al.'s (1985: 1171) categorisation, listed in table 5.5 , shows the possible realisation forms of verbal complements. However, complex clauses often cause difficulties in the analysis as they can be analysed in different ways and generally require a decision on the categorisation method. For example, sentence 57 can be analysed either as trivalent or as divalent verb. As can be seen, substitution with anaphors justifies either variation.

```
57) I consider this development to be highly questionable.
57a) I consider it so. trivalent: subject + direct object + adjectival complement
57b) I consider it to be so / it to be the case. divalent: subject + verbal complement
```

Fischer (1997: 144) favours the divalent analysis as it is, in his opinion, preferable to choose the alternative which identifies the complements closest to the verb. However, in this study the trivalent option was chosen for the analysis as it is believed that a more detailed structure is preferable in a contrastive comparison between languages. As 57-G shows, the German equivalent in this case is not open to interpretation but is a trivalent structure with a prepositional complement.

57-G) Ich halte diese Entwicklung vielmehr für höchst bedenklich.
57-G) Ich halte sie dafür. trivalent: subject + direct object + prepositional complement

Since Allerton (1982) does not discuss complex clauses, verbal complements are not included in his categorisation of valency complement types.

### 5.3.3 Valency Sentence Patterns (Satzbaupläne)

Having established the valency complement types, it is now possible to combine these to construct and analyse clauses. Schumacher et al. (2004: 46) note that it is notable that there are only a limited number of combinations, i.e. valency sentence patterns (Satzbaupläne), possible for individual verbs. This means that the valency complements do not combine arbitrarily into endless variations. Depending on how many complement types a verb can occur with, its valency can be described as zero-valent, monovalent, divalent, trivalent and, though very rare, tetravalent, as shown below.

| Zero-valent ${ }^{15}$ : | 58) | It is snowing. |  |
| :---: | :---: | :---: | :---: |
|  | 58-G) Es schneit. |  |  |
| Monovalent: | 59) | All this has vanished. | <sub> |
|  | 59-G) | All das ist verschwunden. | <nom> |
| Divalent: | 60) | The Commission is monitoring the growth of opposition. | <sub obj> |
|  | 60-G) | Die Kommission beobachtet die wachsende Opposition. | <nom acc> |
|  | 61) | Such activities damage recognised trade. | <sub obj> |
|  | 61-G) | Derartige Aktivitäten schaden dem legalen Handel. | <nom dat> |
| Trivalent: | 62) | The Council of Ministers provides us with a solution. | <sub ind obj> |
|  | 62-G) | Der Ministerrat gibt uns eine Lösung. | <nom dat acc> |
|  | 63) | We congratulate the Council on these decisions. | <sub obj prp> |
|  | 63-G) | Wir beglückwünschen den Rat zu diesen Beschlüssen. | <nom acc prp> |
|  | 64) | It took us quite a few hours of negotiations ... | <sub obj obj> |
|  | 64-G) | Es hat uns sogar mehrere Verhandlungsrunden gekostet ... | <nom acc acc> |
| Tetravalent: | 65) | She bought the house from her sister for a small sum. ${ }^{16}$ | <sub obj prp prp> |
|  | 65-G) | Sie kaufte das Haus von ihrer Schwester für einen geringen Betrag. | c prp prp> |

As can be seen, with the exception of zero- and monovalent valency sentence patterns, there are a number sentence realisation patterns. The terms di-, tri- and tetravalent only state that two, three or four complements respectively are required by the verb, but they do not indicate the kind of complement that is required. Thus, a trivalent sentence pattern can be realised, for example, with a subject, object and indirect complement (62), or with a subject,

[^16]object and prepositional complement (63) or with a subject and two object complements (64). Gross (1998: 102) notes that it is difficult to give a precise list of valency sentence patterns as this depends on the criteria of what is classified as a complement or an adjunct. For example, Fischer (1997: 92, 151) mentions 59 German and 39 English valency sentence patterns, Engel (2009: 150) reports of 54 German valency sentence patterns, and Allerton (1982: 94-118) identifies 33 English valency sentence patterns. It is also important to note that verbs are not restricted to a single valency sentence pattern, but may have 'multiple' valencies (ibid. p 135), i.e. they can occur in different valency sentence patterns (cf. chapter 6, p 170).

### 5.3.3.1 Valency Complements for the Contrastive Study: English - German

|  | German | English |
| :---: | :---: | :---: |
| Case complements | Subjektergänzung (nominative) <sub> | Subject complement <sub> |
|  | (Direkte) Objektergänzung (accusative) <obj> | Direct object complement <obj> |
|  | Akkusativergänzung <acc> | --- |
|  | Genitivergänzung <gen> | --- |
|  | Indirekte Objektergänzung (dative) <ind> | Indirect object complement <ind> |
|  | Dativergänzung <dat> | --- |
| Prepositional complements | Prepositionalergänzung <prp> | Prepositional complement <prp> |
| Adverbial complements | Situativergänzung <sit> | Situational complement <sit> |
|  | Direktivergänzung <dir> | Directional complement <dir> |
|  | Expansivergänzung <exp> | Expansive complement <exp> |
| Predicative complements | Nominalergänzung <nom> | Nominal complement <nom> |
|  | Adjektivalergänzung <adj> | Adjectival complement <adj> |
|  | Modifikationsergänzung <mod> | Modificational complement <mod> |
| Verbal complements | Verbativergänzung <vb> | Verbal complement <vb> |

Tab. 5.6: Valency complements for contrastive analysis in German and English (based on Engel 2009: 134 and Fischer 1997: 94-150)

The above examples 58-65 for di- and trivalent sentence structures show the preferred analysis of the valency complements for English (complements by syntactic function) and German (complements by syntactic case). However, a contrastive analysis is ideally based on homogeneous criteria for the classification of the valency complements (Bianco 1988: 40). This includes that the complements have the same labels and that these labels are comparable. Table 5.6 shows the valency complement types identified for this thesis.

As can be seen, function labels 'subject' and 'object' were used for both languages, where in German the subject complement is equivalent to the nominative case and the object complement to the accusative case. Concessions had to be made for German for occurrences where the German cases do not have an equivalent structure in English. For this reason the German case complements are also listed separately in table 5.6, with no equivalent English structure, indicating that a difference in sentence realisation is to be expected. For example, all indirect objects in English "can be translated by using a dative complement into German, but not vice versa" (Fischer 1997: 110).

Furthermore, it is felt that for a contrastive comparison the valency complement types as shown in table 5.6 are not detailed enough. Therefore sub-classification based on realisation forms, such as finite or non-finite clauses, is introduced in the case study. Table 5.7 shows an example analysis of an English and German sentence respectively.

| 66-E) | We | will, | however, | consider | raising the matter with the Turkish authorities. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Anaphora | we |  |  |  | it |
| Complement <br> type | sub |  | -- |  | objing |
| 66-G) | Wir | werden | jedoch | prüfen, | inwiefern wir diese Angelegenheit bei den türkischen <br> Behörden ansprechen werden. |
| Anaphora | wir |  |  |  | es |
| Complement <br> type | sub |  | -- | objwh |  |

Tab. 5.7: Comparative example analysis of valency complement types in English and German

As can be seen the sentence structure (66) in both languages is <sub obj>, but the subcategorisation shows that in English the object is realised with an ing-clause and in German it is realised with a wh-clause. The valency sentence patterns are therefore <sub obj-ing> and <sub obj-wh> respectively.

Based on the above classification parameters the case study will investigate whether valency sentence patterns and meaning, i.e. translation equivalents, overlap. Or, in other words, whether the preferred (frequent) translation equivalents depend on the valency patterns of the verbs involved.

### 5.4 Conclusion

In contrastive linguistics the chosen method for a comparison of different languages is a key concern as it will influence the extent of the findings. A decision has to be made on what is seen as equivalent syntactic and / or semantic structure. Within this decision falls the choice of methodology which should take account of all the languages under investigation. Syntactic valency is chosen as the starting point for the contrastive investigation into English and German. It has been shown that the independent analysis of English and German shows notable differences in the methods of analysis. Teubert (2007: 225) attributes these differences mainly to the lack of morphology and inflection in the English language. In its place English has quite a rigid word-order, i.e. syntactic sentence structure, which leads to a different analytical method. However, in contrastive language analysis it is mandatory to find classification categories or labels that are equally suitable for both languages.

Valency theory is concerned with the local grammar of words. It thus allows the exploration of instances of language composition for which general grammar theories cannot account.

Another advantage of valency theory is that it is able to investigate various aspects or levels of language composition (cf. chapter 4, p 71).

The discussion has shown that valency has some commonalities with transitivity analysis and constituency grammar. For example, both valency and transitivity analysis are concerned with verb complementation patterns. However, it has been shown that the relatively limited distinction between intransitive, copular, monotransistive, ditransitive and complex transitive verbs is not sufficient to account satisfactorily for the large number of complementation patterns that can occur with verbs. Valency theory, on the other hand, allows for detailed sub-classification of verbs due to its broader classification of complement types. This means that valency complement categorisation can also accommodate the particularities of English and German language composition and show differences and similarities in a contrastive study. Similarly, both valency and constituency grammar are concerned with structural aspects of sentence construction. But while constituency shows the linear structure of sentence construction, valency is concerned with connexions between sentence elements, i.e. the question of which elements can, must or cannot occur together independent of their linear order in a sentence. Since German has a more flexible word order than English a contrastive study based on constituency seems to provide fewer insights into the differences and similarities between the two languages than a contrastive study based on connexions is able to produce.

Central to valency theory is the differentiation between complements, i.e. elements that belong to the complementation pattern of a lexical item, and adjuncts, i.e. elements that can occur with any lexical item. However, this differentiation is not always straightforward and, despite various suggested classification tests (permutation, commutation, elimination and question test), it has been shown that the classification is at times arbitrary and dependent on the viewpoint of the researcher. Nevertheless, these tests are useful in identifying the
sentence constituents in general and can thus show differences and similarities regarding sentence elements in contrastive language studies.

Taking the differences between English and German language construction into account, syntactic complement types that suit both languages were suggested (table 5.6, p 165). It was felt that classification by syntactic function would suit both languages best, since there is generally congruence between the subject, direct and indirect object in English and the German cases nominative, accusative and dative, respectively. The dative case forms an exception, since not all German dative cases represent the indirect object. Therefore, the dative case is also listed separately in the German complement types, indicating that there is no equivalent English structure. Depending on the depth of the comparison, subclassification of the complement types is possible. The approach taken allows for a detailed analysis and comparison of various translation pairs, i.e. choice of translation equivalents, and their local grammar.

## 6 CASE STUDY: ‘CONSIDER’

## - VALENCY SENTENCE PATTERNS AND THEIR FREQUENCIES -

### 6.1 Introduction to the Case Study

The aim of the case study is to explore possible links between the valency sentence patterns (Satzbaupläne) of the verb CONSIDER and its German translation equivalents (TEs). The case study is divided into two chapters. Chapter 6 proposes possible valency sentence patterns for the verb CONSIDER which are believed to be suitable for a contrastive study of English and German. Chapter 7 investigates the TEs of CONSIDER based on data from the EuroParl corpus and the Oslo Multilingual Corpus (OMC), and analyses these for their valency sentence patterns and those of CONSIDER.

It will be shown that the verb CONSIDER has multiple valency sentence patterns and a large number of possible German TEs. The question that will be investigated is whether there is a correspondence between a specific valency sentence pattern and a TE, i.e. whether valency sentence patterns in one language are likely indicators for preferred TEs. The analysis is, due to the investigative character of this thesis, based on manual analysis of randomly chosen concordance lines. However, it will be argued that a limited number of concordance lines is sufficient to identify frequency trends in the distribution of valency sentence patterns and their TEs, from which general statements can be inferred.

For the interpretation and evaluation of the findings I felt it was necessary to compare the findings with those of similar words. Therefore a comparison of CONSIDER with the verbs THINK, BELIEVE and FEEL is drawn in the analysis. The four verbs are generally accepted as near-synonyms, although they are at the same time often classified as polysemous verbs, i.e. they have multiple meanings. It is believed that a comparison of the valency sentence
patterns will highlight the structural and syntactic differences with regard to meaning interpretation between near-synonymous uses, monolingually and bilingually.

### 6.1.1 Chapter Introduction

Based on the suggested valency complement types for a contrastive study of English and German (cf. section 5.3.3.1, p 165), sections 6.2 and 6.3 discuss possible valency sentence patterns of CONSIDER and the other verbs under investigation. As will be seen, the classification is not as straightforward as might be initially assumed. Questions regarding the interpretation and viability of the indentified valency sentence patterns will be addressed and the reasoning for the chosen patterns will be discussed.

A comparison of the identified valency sentence patterns of CONSIDER, BELIEVE, FEEL and THINK will be carried out in section 6.4. The comparison reveals that only a small number of valency sentence patterns is shared between the verbs, i.e. the near-synonymous verbs have a large number of valency sentence patterns individual to them. Although this thesis is concerned with a contrastive comparison of English and German, the hypothesis that near-synonymous verbs are exchangeable when they share the same valency sentence pattern will be briefly investigated. This might be interesting as a similar hypothesis can be brought forward for the bilingual comparison, which is that near-synonymous verbs sharing the same valency sentence pattern will also share the same TEs. The analysis will show that such a hypothesis has to be refuted in monolingual English language use, which indicates that substitution of near-synonymous verbs may depend on factors beyond the valency sentence pattern and that other grammatical, functional or semantic considerations need to be taken into account for meaning interpretations of words (cf. chapter 4, p 71).

The assumption in this thesis is that actual language use, i.e. occurrences in a corpus, should be a parameter for acceptance or refusal of an identified possible valency sentence pattern. Frequency analysis for three different corpora is applied in section 6.5 to support the categorisations. The corpora are: EuroParl, BoE, and OMC which consists of two parts, OMC-EO (English as original language) and OMC-ET (English as translated language). If the identified patterns do not occur frequently enough in these three corpora they might be excluded from the further analysis. This is not to say that these patterns may not be valid, but only indicates that they are not frequent enough to be included in this comparison of the valency complements of CONSIDER and their TEs.

### 6.2 The Valency Sentence Patterns of CONSIDER

In this first step of the case study analysis I propose possible valency sentence patterns for the four verbs under investigation. Starting with the verb CONSIDER, its possible valency sentence patterns are discussed, addressing the following two key issues: first, depth of subcategorisation of valency complements and second, ambiguous sentence surface structures. The depth of sub-categorisation of the valency complements will have an impact on the findings in a contrastive study. Too few valency sentence patterns may not reveal the differences between the languages and result in overgeneralisations, too many valency sentence patterns may result in inconclusive findings from which no generalisations can be drawn. Based on the fact that valency complements are not solely based on the surface structure of a clause, ambiguous structures, which can be interpreted in a number of ways, will be discussed and it will be explained how these are dealt with and which decisions have been taken. Following this, the valency sentence patterns of BELIEVE, FEEL and THINK will be investigated. A comparison of the four verbs and their respective identified valency sentence patterns will be undertaken. It will be shown that substitution, i.e. synonymous use, depends to a large extent on a shared valency sentence pattern.

### 6.2.1 CONSIDER

Table 6.1 shows the 15 valency sentence patterns identified for the verb CONSIDER, based on the valency complement types identified in chapter 5 (section 5.3.3.1, p 165) for a contrastive comparison of English and German.


Tab. 6.1: Valency sentence patterns of CONSIDER

As can be seen, a great degree of differentiation, i.e. sub-categorisation, is possible regarding the realisation of the core valency complement types.

One question which generally arises is 'Are the suggested valency patterns and realisation forms viable?'. The answer is: 'We do not know!', since words do not come with inherent labels, giving instructions on how to use them. Furthermore, the various available test methods may lead to contradictory results, i.e. while according to one test a sentence element may be classified as complement, in another test the same sentence element may be classified as an adjunct (cf. section 5.3.1, p 141). Storrer (2003: 778) notes that the distinction between complement and adjunct will always involve a degree of intuition by the grammarian or lexicographer based on their respective purpose, i.e. is the classification based on syntactic or semantic necessity, on functional aspects or argument structure? Thus, other researchers may decide on different sub-patterns and different labelling of the valency complement types. For example, for the verb CONSIDER Noël (1996: 93-97) uses word-class labels as in 'CONSIDER + NP', which is equivalent to the pattern <sub obj> in table 6.1. Furthermore, he identifies a category 'CONSIDER + if/whether-clause' in addition to the category 'CONSIDER + WH-clause'. Both of these structures are combined under the category <sub obj-wh> in table 6.1. Similarly, the Valency Dictionary of English (Herbst et al. 2004) uses the categories [ N ] and [wh-CL] representing the patterns <sub obj> and <sub obj$w h>$, respectively, shown in table 6.1.

The position taken in this thesis is that frequency of use, i.e. occurrences in a corpus, should be the indicator for acceptance or refusal of an identified possible pattern (see section 6.5). In contrastive linguistics TEs can be a further indicator for accepting the viability of patterns. If an identified structure shows a preference for a certain translation equivalent it has to be accepted as a valency sentence pattern. Moreover, if a TE predominantly occurs with a certain valency pattern of CONSIDER then this TE is suitable for this specific pattern, i.e. it is
a less suitable TE for all the other valency patterns that CONSIDER can occur with (cf. chapter 7, p 221).

The issues and the decisions taken regarding the suggested valency sentence patterns for CONSIDER shown in table 6.1 will be discussed in the following sections under the headings monovalent (6.2.2), divalent (6.2.3), trivalent (6.2.4) and valency sentence patterns with a correlate it-structure (6.2.5). This includes the discussion of ambiguous surface sentence structures where a number of different interpretations are possible. Other issues regarding valency complement identification will be addressed in section 6.2.6.

### 6.2.2 The Monovalent Sentence Pattern

An interesting case for discussion is constituted by a probable monovalent pattern <sub> for the verb CONSIDER as shown in table 6.1:

1) The Commission should hear the sector's views, consult, listen, consider.

The Valency Dictionary of English (Herbst et al. 2004: 175) accepts a monovalent valency pattern which is exemplified with the sentence 'Cook tilted her head to one side, considering. . Similarly, some dictionaries, for example the Longman Dictionary of Contemporary English (2003: 330), mention an intransitive structure for CONSIDER - but the only example given is the idiomatic phrase 'all things considered', which generally functions as an adjunct, as shown in a sentence 2, and for which intransitive classification is therefore debatable:
2) But all things considered, the advantages outweigh the disadvantages.

Many other dictionaries, however, such as the Oxford Advanced Learner's Dictionary (2005: 324), only show CONSIDER as transitive verb. Francis et al. (1996: 1), when discussing the
intransitive pattern ' $V$ ' for the pattern grammar approach, mention that "[m]any verbs are used with this pattern only when something involved in the action, apart from the Subject, has already been mentioned." This implies that these verbs usually occur with an object, i.e. they are transitive, and only occur without the object due to stylistic reasons as the object can be retrieved from the context. For example, sentence 1 could be rewritten as suggested in 1a:

1a) The Commission should hear, consult about, listen to, and consider the sector's views.

Furthermore, the low frequency of the monovalent use certainly implies uncommon usage. For this reason the monovalent pattern <sub> is rejected for the verb CONSIDER and excluded from the further investigation. Occurrences such as sentence 1 are listed under the divalent sentence pattern <sub obj>.

### 6.2.3 The Divalent Sentence Patterns

In the divalent pattern CONSIDER occurs with a subject and an object complement <sub obj>. The subject complement can be identified by anaphorisation with a pronoun in the subject case, and the object with a pronoun in the object case.
3) [The Committee] did not consider [the proposal I tabled].
Anaphorisation: 3a) [They] did not consider
[it].

Anaphorisation represents the substitution or commutation test (Gross 1998: 73). The purpose of the test is to identify the valency sentence complements. Valency sentence complements consist of words or word groups which can only be replaced as one single unit. Depending on the investigation, syntactic and meaning correspondences can thus be identified (Teubert 2007: 233). As shown in example 3, the sentence consists of nine words but only three sentence elements: the verbal structure as valency carrier, and two valency
sentence complements. Four different realisation forms of the object are possible for the verb CONSIDER: with a noun phrase <sub obj> (4), a that-clause <sub obj-that> (5), a wh-clause <sub obj-wh> (6) or a non-finite ing-clause <sub obj-ing> (7). All of these realisation forms can be replaced by the pronoun 'it' identifying them as a single unit, i.e. a valency sentence complement.

```
4) [We] therefore consider [the problem]. We consider it.
5) [The Greens] consider [that a rigorous programme is a fundamental prerequisite
    for resolving the current crisis]. They consider it.
6) [We] consider [whether the Commission can take further legal measures]. We consider it.
7) [We] must consider [handing over the responsibility to the joint committees]. We consider it.
```

'That' does not always indicate a conjunction, it may also occur as a pronoun, referring to a previous statement. It is relatively easy to distinguish between the two uses, with the permutation test (Gross 1998: 73). The test states that valency sentence complements can only be moved as a whole unit. Thus, 'that' as a pronoun can take initial sentence position (5a), whereas 'that' as a conjunction cannot be separated from the rest of the clause (8, 8a).

Original: 5) [The Greens] consider [that this is a fundamental prerequisite].
Permutation: *5a) [That] [the Greens] consider [this is a fundamental prerequisite].
Original: 8) [I] consider [that] [very important].
Permutation: 8a) [That] [I] consider [very important].

It has to be noted that due to the relatively fixed word order in English, unlike German which has a liberal word order, the permutation test is often not suitable for English (Teubert 2007: 234). In the case of 'that' as pronoun or as conjunction, passivisation is sufficient to distinguish between the two uses - for the use as a conjunction the whole that-clause will take subject position (5b), whereas for pronoun use only the pronoun will take the subject position (8b).
$\begin{array}{ll}\text { Passive: } & \text { 5b) }[\text { That this is a fundamental prerequisite] is considered. } \\ \text { Passive: } & \text { 8b) }[\text { That] is considered [very important]. }\end{array}$

Valency sentence complements are based on the active canonical clause. Therefore it is necessary to transform many sentences into a simple clause in order to categorise them. During this process the adjuncts, mostly adverbial phrases, are also eliminated.

```
Original: 9) The Commission and the Member States will consider together the most
    effective ways of ..
Simple clause: 9a) They will consider the most effective ways.
Original: 10) It is one we would do well to consider carefully.
Simple clause: 10a) We consider this one.
Original: 11) The important question, which you raised, Mrs. Spaak, must be considered in
    this context.
Simple clause:
Original:
Simple clause
11a) We consider this important question.
12) Is the Commission considering legislation at European level?
12a) The Commission is considering legislation at European level.
```

In example 9 'together' is categorised as an adverb and is therefore an adjunct. Sentence 10 is a complex sentence with three verbs, $\mathrm{BE}, \mathrm{DO}$ and CONSIDER. For the valency analysis the non-finite clause 'to consider carefully' is changed into a finite clause, and the adverb 'carefully', which represents an adjunct, is omitted. Example 11 is a passive structure, which is transformed into an active clause. Similarly, the question form of example 12 is transferred into a simple active clause. Based on this analysis all the above examples would be categorised as divalent valency sentence pattern <sub obj>.

### 6.2.4 The Trivalent Sentence Patterns

To begin with, it should briefly be noted that neither of the verbs under investigation occurs with the prototypical trivalent valency sentence pattern <sub ind obj> (13).

```
13) [We] should give [European Union citizenship] [real meaning].
```

The trivalent sentence patterns identified in table 6.1 for the verb CONSIDER are <sub obj nom / adj> (section 6.2.4.1), <sub obj nom-as / adj-as> (section 6.2.4.2), <sub obj vb-to-be-
nom / adj> and <sub obj vb-to-ints (section 6.2.4.3) and <sub obj prp> (section 6.2.4.4). The difficulty in the classification of these valency sentence patterns is that in general grammar most of these are seen as variations of each other. For example, Allerton 1982: 109, Biber et al. 2002: 330, Eastwood 2005: 143, Lamprecht 1973: 257, Swan 2005: 600 and Quirk et al. 1985: 1200 all imply that there is apparently no difference in meaning between sentences 14 to 14 c and 15 to 15 c , which, in turn, means that the different surface structures are merely a stylistic choice.
14) We consider environmental damage a serious crime.

14a) We consider environmental damage to be a serious crime.
14b) We consider environmental damage as a serious crime.
14c) We consider that environmental damage is a serious crime.
15) ... - I consider the point very important.

15a) $\quad . \quad$ - I consider the point to be very important.
15b) $\quad \ldots$ - I consider the point as very important.
15c) $\ldots$ - I consider that the point is very important.

Should one pattern be chosen to represent all the others in these cases? And if so, which one, and based on what rules? The idea is certainly viable. For example, in valency theory passive constructions are traditionally seen as a transformation of the active structure, since passivisation does not change the number of valency complements a verb can take (Engel 1988: 189). Hence, the knowledge of a verb includes information on its valency structures and whether it can occur in a passive structure and if so, how this is formed ${ }^{19}$.

Against an attempt to combine the above example sentences 13 to 13 c and 14 to 14 c under one valency category is the inclination of many grammarians of dependency and valency grammar not to manipulate the surface appearance of sentences if at all possible (Fischer 1997: 148), but treat different surface structures in their own right. This is the approach taken in this case study.

[^17]
### 6.2.4.1 Predicative complements: nominal and adjectival complements

Nominal or adjectival complements, often summarized as predicative complements, can be identified through anaphorisation with 'as such'. The valency sentence patterns are <sub obj nom> (16) and <sub obj adj> (17) respectively.


The nominal and adjectival complements occurring with CONSIDER classify the object complement, either by categorisation into a group, as in example sentence 16, or by attribution of a feature, as in example 17 (Engel 1988: 197).

### 6.2.4.2 Nominal and adjectival complements with 'as'

According to Quirk et al. (1985: 1200) and Fischer (1997: 138) nominal and adjectival complements can occur either with 'as' $(16,17)$ or without 'as' $(16 \mathrm{a}, 17 \mathrm{a})$, thus indicating that they are variations of the same valency sentence pattern.

16b) They consider Kostunica as a Great-Serbian nationalist.
17b) We consider them as dangerous.

However, Allerton (1982: 138) notes that "despite the apparent synonymy of the two structures it may be possible to detect a semantic difference between them". The initial analysis of the valency sentence complements of CONSIDER (table 6.1) distinguishes between the versions with or without 'as'. The frequency analysis and the TEs in the following steps of the analysis will show whether it is viable to separate the structures or whether they can be combined into one category.

The question that arises is how to label the structure with 'as'. Quirk et al. (ibid.) classify 'as' as a preposition which functions semantically as an attribute. Yet, can it be classified as
belonging to the word-class preposition? Prepositions are anaphorised with a paraphrase which consists of the preposition plus an appropriate pronoun, as shown in example 18.

```
    18) The Commissioner will have already thought [about an initiative].
Anaphorisation: 18a) He will have already thought [about it].
```

The reading of 'as' as a prepositional complement is questionable for completion with a noun phrase (19) and impossible for adjectival phrases (20) with the verb CONSIDER.

```
19) Parties who consider Professor Vermeersch as a moral beacon, ...
    Anaphorisation: > (*) as him (?)as it - (?) PREPOSITONAL COMPLEMENT
    > as such - NOMINAL COMPLEMENT
20) ... , the Commission considers a reduction of the available budget as inappropriate.
    Anaphorisation: > (*) as it - (*) PREPOSITONAL COMPLEMENT
    > as such - ADJECTIVAL COMPLEMENT
```

It appears that 'as' does not function as a preposition, but forms part of the nominal or adjectival complement. The German translation for 'as' is 'als', which is not classified as a preposition since it does not govern a case. In the analysis of German only particles which govern a case are termed prepositions (Altmann and Hahnemann 2010: 103). The particle 'als' represents a transference or transposition ('translation' in French), a term introduced by Tesnière (1980: 251) to explain changes in the syntactic category of words in a sentence. Heringer (1970: 202-205) identifies 'als' as an 'identification-translative' (Identifikationstranslativ), and introduces a separate category 'relational complement' (Gleichsetzungsergänzung) for these structures. However, since these structures only occur with verbs that govern a nominal or adjectival complement (Teubert 1979: 142) it was decided to categorise these occurrences as predicative complements under the sub-patterns <sub obj nom-as> and <sub obj adj-as>.

Occurrences where 'as' functions as an adverb represent adjuncts and are excluded from the analysis. The valency pattern for example sentence 21 is therefore <sub obj>, and for 22 <sub obj-that>.

```
21) We are also considering as favourably as possible the requests for a re-orientation ...
22) We consider as a committee that petitions are a valuable tool for democracy ...
```


### 6.2.4.3 Verbal complements

Anaphorisation for verbal complements is varied and not always conclusive. Engel (1988: 187) suggests the paraphrases 'it happen' ('es geschehen'), 'it do' and 'be so'. Irrespective of the chosen paraphrase for anaphorisation, most importantly verbal complements do not commute with a non-verbal phrase.

In English, nominal and adjectival complements can be extended to a verb phrase with a toinfinitive. The analysis distinguishes between verbal complements with to-be $(23,24)$ and all other to-inf structures (25).

```
23) I consider monetary stability to be the only duty of the European Central Bank.
24) I consider Amendment No 59 to be problematic.
25) ... you consider this incident to constitute a serious obstacle ...
```

The reason for this distinction is purely based on frequency. Extension with 'to-be' seems to be much more frequent than with other to-infinitive verbal structures (Lamprecht 1973: 257). Due to the higher frequency, verbal complements with 'to-be' were additionally subcategorised as to whether they are followed by a nominal or an adjectival phrase. The three identified valency sentence patterns for CONSIDER with a verbal complement in table 6.1 are thus <sub obj vb-to-be-nom> (23), <sub obj vb-to-be-adj> (24) and <sub obj vb-to-int> (25).

The valency analysis of these structures, however, is somewhat difficult, as the object of CONSIDER also functions as the subject of the verb in the sub-clause. Fischer (1997:144) comments that valency theory cannot adequately deal with this 'double role'. There are three
alternative ways to analyse these structures (ibid. pp 147-148), which are exemplified for sentence 23.


In 23a the to-infinitive form is treated as an infinitival instance of the nominal complement. In 23 b it is analysed as a verbal complement on the grounds that classification is based on word class. And in 23 c everything after the verb is treated as a verbal complement. The approach taken in this study is as seen in 23 b since it is closest to the surface structure.

According to Allerton (1982: 109) nominal and adjectival complements are more natural with 'to-be' inserted before the predicative, and even more natural with a subordinate that-clause. This implies that the meaning does not change between the original sentence 26 and the extended variations 26a and b.
26) I consider the point very important.

26a) I consider the point to be very important.
26b) I consider that the point is very important.

Bolinger (1977: 125) argues that this notion of the same underlying structure of embedded that-clauses and sentences with an infinite complement with 'to' is not always the case. He uses the verb BELIEVE for exemplification.

| 27) I believe that John is a man of integrity. | $<>$ | $27 \mathrm{a})$ I believe John to be a man of integrity. |
| :--- | :--- | :--- |
| 28) I believe that the word has already come. | $>$ | $28 \mathrm{a})$ ? I believe the word to have already come. |
| 29) I believe that you think I'm lying. | $>$ | $29 a)$ ? I believe you to think I am lying. |

Bolinger believes that the key indicator for the acceptability of these transformations is the compatibility of the individual sentences as demonstrated in 27b-29b.

27b) I believe John. John is a man of integrity.
28b) ? I believe the word. The word has already come.
29b) ? I believe you. You think I'm lying.

However, the notion of compatibility is subjective and therefore not always conclusive. For example, for sentence 30 it could be argued that the two individual clauses (30a) contradict each other and are therefore not compatible. Yet, a transformation into a to-infinitive clause (30b) is perfectly acceptable.
30) We consider that changes to the budget plan are unnecessary.

30a) We consider changes. Changes are unnecessary.
30b) We consider changes to be unnecessary.

It seems more likely that, rather than compatibility, probability of occurrence is a determining factor with regard to the acceptability of grammatical structures (Hoey 2005: 152).

The approach taken for the complement categories in this study is based on the corpus linguistic measure of frequency of occurrence and provides the opportunity to investigate whether there are differences in meaning, identified through the TEs, in the trivalent completion of CONSIDER with a predicative complement, a predicative complement with as, a verbal complement with to-be, and the divalent completion with a that-clause .

It has to be noted that the surface structure 'verb+object+to-infinitive' is ambiguous and does not always represent the valency sentence pattern <sub obj vb-to-ints as demonstrated by examples 31 and 32 .

[^18]Applying the substitution test helps to identify the role of the noun phrase following the verb in the main clause. In examples 31 and 32 a substitution with a that-clause (31a, 32a) is only acceptable when meaning correspondence between the two structures is retained (Eastwood 2005: 143):

31a) The Commission considers that the Community has a general competence in criminal matters ...
32a) ? The Commission considers that a proposal bans the use of mechanically recovered meat ...

Though grammatically correct, 32a is different in meaning to 32 and therefore not an equivalent structure. The to-infinite clause in example 32 functions as a defining or postmodifying clause of the object phrase and is not dependent on CONSIDER.

32b) The Commission considers a proposal which/that bans the use of mechanically recovered meat ...

Occurrences of this kind are therefore classified as <sub obj>, since the to-infinitive structure is not a dependent of the verb CONSIDER.

Similarly, careful reading of the surface structure is required when the object is realised by an ing-clause, as examples 33 and 34 illustrate.
33) They don't consider playing 200 miles from the Yugoslav border to be a good enough reason for seeking postponement.
33a) They don't consider that playing 200 miles from the Yugoslav border is a good enough reason for seeking postponement.
34) The Council considers asking the Commission to carry out an impact analysis ...

34a) *The Council considers that asking the Commission carries out an impact analysis ...

Example 33 belongs to the valency sentence pattern <sub obj vb-to-be-nom> since substitution with a that-clause is possible (33a). In example 34, however, the to-infinitive clause is not dependent on the verb CONSIDER but on the ing-object phrase. Substitution with a that-clause is not possible (34a). The anaphorisation is therefore 'They consider it', and sentences such as example 34 are categorised as <sub obj-ing>.

The transformation of to-inf-clauses into that-clauses is also discussed under the topic 'subject raising' and includes a number of verbs which can raise a noun phrase from a lower clause into a higher clause (König and Gast 2009: 202). The subjects 'the community' and 'playing 200 miles from the Yugoslav border' of the that-clause (31a, 33a) are raised to the main clause as object $(31,33)$. This change can be detected in the valency sentence patterns. The pattern with a to-inf-clause shows an object complement followed by a verbal complement <sub obj vb-inf> $(31,33)$, whereas in 31a and 33a the whole that-clause is classified as one unit - an object complement <sub obj-that>. The conjunction 'that' does not have a meaning of its own, it is not a valency sentence complement of the subordinate clause, but only functions as subordinating element of a finite clause (Engel 1988: 717, Swan 2005: 576).

The distinction between adjectival and nominal complements is not always straightforward, as exemplified in examples 35 and 36 . Based on the surface structure, the determiners indicate that both ought to be analysed as nominal complements.

```
35) Many would consider REM [the most credible band] in the world.
    Substitution: Nominal ? [a band] / ? [the band]
    Adjectival ? [credible]
36) ... that he would be considered [the guilty party].
    Substitution: Nominal * [a party] / [the party]
    Adjectival [guilty]
```

With the help of the substitution test elements, more specifically sentence constituents, which can replace each other and therefore represent the same word-class or part-of-speech can be identified. However, is the proposition in 35 that 'REM is a / the band' or that 'REM is credible'? For these occurrences it was decided to favour the surface structure and analyse them as nominal complements. Whereas in example sentence 36 the substitution test clearly identifies the phrase as adjectival complement.

A similar case is constituted with prepositional phrases, which can represent adjectival or nominal complements. Example sentences 37 and 38 show how these occurrences were analysed using the substitution or commutation test.

```
37) I consider Amendments Nos 3 and 4 to be [of particular importance].
    Substitution: Adjectival [important]
38) 'Stoli' was not considered to be [in direct competition].
    Substitution: Nominal [a competitor]
```

Having made the decision to distinguish the verbal complements by whether they are followed by a nominal or an adjectival phrase, this raises the question of how to deal with past (39) and present participle (40) forms of verbs following the object complement. To be consistent with the remainder of the analysis, these occurrences were analysed as shortened infinitive clauses (39a, 40a) where the past and present participle have the function of an adjective and are therefore included in the pattern <sub obj adj>.
39) ... civil society considers itself represented there ...

39a) ... civil society considers itself (to be) represented there, ...
40) ... we consider it lacking in other areas.

40a) ... we consider it (to be) lacking in other areas.

Whereas occurrences with a to-infinitive extension $(41,42)$ were analysed as a verbal complement in the valency sentence pattern <sub obj vb-to-be-adj>.
41) We consider ourselves to be committed to this process.
42) I consider this procedure to be most insulting to the House.

However, careful reading of the surface structure is required as example sentences 43 and 44 show. The past and present participle in these examples function as a relative clause (43b, 44b) where the relative pronoun is omitted (Sinclair 2005: 370). The valency pattern is hence <sub obj>.
43) ... to allow us to consider the questions raised in the report and to take ...

43a) ... consider the questions which/that were raised ...
44) ... he seems not to have considered those carrying out the restructuring.

44a) ... he seems not to have considered those who are carrying out the restructuring.

These examples demonstrate the ambiguity of surface structures. Due to this ambiguity decisions have to be made regarding the categorisation of the valency complements. Categories may be analysed differently dependent on the aims of a study.

### 6.2.4.4 Prepositional complements

In 'A valency dictionary of English' Herbst et al. (2004) introduce the structure as ' $+\mathrm{N}_{\mathrm{P}}+$ for $N$ ' (45) as a valency sentence pattern of CONSIDER. The subscripted letter ' $P$ ' indicates that the noun phrase becomes the subject of a passive sentence (45a), in order to distinguish the pattern from a prepositional phrase post-modifying the object as in 46.
45) After he was fired, he found no one would consider him for another job.

45a) He would not be considered for another job after he was fired.
46) The company is considering [options for its brewing business].

This structure is shown in table 6.1 as the pattern <sub obj prp-for>. However, the pattern is quite rare and no occurrences of this pattern were found in my initial analysis of 400 concordance lines (cf. section 2.2.1, p 28). Knowing that the structure is a possible valency sentence pattern, I carried out a specific search for it in the EuroParl database. No occurrences in the active were found, while a search for the passive showed 34 occurrences, as illustrated in example sentences 47 and 48.

```
47-E) As you know, Turkey did not see the European Council confirmation that it should be
    considered for accession as sufficient.
Active clause: We consider Turkey for accession.
47-G) Wie Sie wissen, hat die Türkei die Bestätigung des Europäischen Rates, daß sie für
    einen Beitritt in Frage kommt, nicht als ausreichend angesehen.
48-E) One might quip that if South Africa was in Eastern Europe, it would probably be
    considered for membership of the European Union.
Active clause: We consider South Africa for membership.
48-G) Scherzhaft könnte man sagen: Läge Südafrika in Osteuropa, so käme es eventuell für
    die Mitgliedschaft in der Europäischen Union in Betracht.
```

Because of its low frequency, the pattern is excluded from the further analysis. However, the TEs can briefly be mentioned here: six occurrences are translated with the phrase 'in Frage

KOMMEN' (47-G), three with 'in Betracht ZIEHEN', another with a variation of this 'in Betracht KOMMEN' (48-G), three were translated with the verb BERÜCKSICHTIGEN, five TEs occurred just once and 16 occurrences were classified as 'no translation'. The most frequent German TEs usually occur with the preposition 'für' (as in the above examples 47 and 48), thus representing the same valency sentence structure as English.

### 6.2.5 Complements with Correlate it Structure

Table 6.1 ( p 173 ) shows four valency sentence patterns with correlate $i t$, these are <sub it nom vb-that>, <sub it adj vb-that>, <sub it nom vb-ints, and <sub it adj vb-int>. In general grammar these structures are called preparatory it-object or object extraposition and are treated as a variation of nominal and adjectival complements (Quirk et al. 1985: 1199; Swan 2005: 424). However, as examples 49 and 50 show, the transformation into a nominal or adjectival complement requires (49a-b, 50a-b) syntactic and morphological changes and the results sometimes sound strange, if not wrong.
49) We consider it a bad idea to take the funding from the farming sector.

49a) *We consider to take the funding from the farming sector (to be) a bad idea.
49b) We consider taking the funding from the farming sector (to be) a bad idea. <sub obj nom>
50) I consider it essential that we take prompt action.

50a) (?) I consider that we take prompt action (to be) essential.
50b) I consider taking prompt action (to be) essential. <sub obj adj>

Therefore it is preferable to accept these structures as a separate valency pattern of CONSIDER. The correlate itself is meaningless, but fulfils a reference function to the more concrete contents of a following subordinate clause (Engel 1988: 252). With CONSIDER the correlate refers to a that- or a to-infinitive extension clause following a nominal or adjectival complement. The correlate it is positionally obligatory (stellungsbedingt obligatorisch), since it cannot be omitted (49c, 50c), and cannot occur with the extension clause in initial position (49d, 50d).

49c) *We consider a bad idea to take the funding from the farming sector.
49e) *To take the funding from the farming sector we consider it a bad idea.

50c) *I consider essential that we take prompt action.
50d) *That we take prompt action I consider it essential.

The further analysis will show the frequency of occurrence and the TEs for the identified patterns and reveal whether they could be seen as a stylistic choice rather than a syntactic or semantic obligation. It is assumed that if the TEs are distributed evenly amongst the valency sentence patterns, then the patterns do not relate to meaning.

### 6.2.6 Other Issues Regarding Valency Complement Identification

Some general issues regarding the valency complement identification for the verb CONSIDER need to be addressed briefly. These are passive structures (section 6.2.6.1), present and past participle structures (sections 6.2.6.2 and 6.2.6.3), the traditional analysis as direct speech occurrence (section 6.2.6.4) and idioms (section 6.2.6.5).

### 6.2.6.1 Passive structures

Since the valency of a verb is determined by the complements it takes in the active clause, it was necessary to change all passives back into an active structure. This is not always a straightforward task as sentence 51 illustrates, for which two possible active structures are conceivable.

```
51) I must highlight once again that the idea that only the falsification of milk products
    directly subsidised by Community funds is considered to affect the financial
    interests of the Community is unacceptable.
        Active clause: 51a) You consider the falsification to affect the financial interests.
                            51b) You consider that the falsification affects the financial interests
```

It was decided to accept as valency pattern the one which is closest to the surface structure of the passive form. However, accepting the active structure 51a may lead to a slight bias in
favour of the valency pattern <sub obj vb-to-int>, since the 'that' of a that-clause will always get lost in passivisation, unless a structure with a preparatory it-subject is used (51c).

51c) It is considered that the falsification affects the financial interests.

### 6.2.6.2 Functions of the present participle form 'considering'

Since the German language does not have an equivalent structure using the present participle form of verbs, it is worth briefly discussing the syntactic differences of realisation in German which depend on the function of the -ing form in English.

König and Gast (2009: 72) identify eight functions for verbs in the -ing form. Two of these are relevant for a contrastive valency comparison, these are: adverbial participles and deverbal prepositions. Both are non-finite clauses, the former represent adjuncts of the main clause, i.e. they are not required (52), while the latter function as preposition (53) or conjunction (54) introducing an adjunct.

```
52) For the Commission to enter into any negotiations and do a backroom deal, not considering
    the full implications for the European Union, is not very clever.
53) Today's decision not to renew the embargo is extremely dangerous considering the
    situation there.
54) The European Union cannot realistically achieve that alone, considering that 1 % of the
    total budget is invested in culture and education.
```

A distinguishing feature between the two structures is that adverbial participles can occur with the negator 'not' as in 52, but deverbal prepositions cannot occur with it (53a, 54a).

53a) *Today's decision is extremely dangerous not considering the situation there.
$54 a)^{*}$ The European Union cannot achieve that alone, not considering that $1 \%$ of the total budget is invested in culture.

In the translation of adverbial participles from English into German (52-G) the verb is recovered (ibid. p 74). For this reason, these occurrences are included in the case study analysis, and 52 would be analysed as <sub obj>.

```
52-G) Wenn die Kommission sich auf Verhandlungen einläßt und hinterrücks eine Vereinbarung
    eingeht, ohne dabei die Auswirkungen auf die EU zu berücksichtigen, dann ist das nicht
    sehr klug .
```

This is not the case for deverbal prepositions, which are typically translated (53-G) as a preposition or conjunction without a verb (Lamprecht 1973: 301).

53-G) Die heutige Entscheidung gegen eine Verlängerung des Embargos birgt angesichts der dortigen Lage eine sehr große Gefahr.

This is, however, not always the case. It is also possible to include the verb after the preposition as in 54-G.

54-G) Realistisch betrachtet kann das die Europäische Union nicht allein leisten, wenn wir sehen, dass 1 \% des Haushaltsvolumens in Kultur und Bildung investiert wird.

Rather than deciding to exclude these occurrences from the very start, they were initially included in the analysis. The English sentences 53 and 54 would thus be categorised as <sub obj> and <sub obj-that>, respectively. However, occurrences where in the analysis of the TEs the verbal function was not recovered were excluded from the third step of the analysis. Hence, occurrences such as 53 would be categorised as 'non-verbal use', while occurrences such as 54 would remain in the category <sub obj>. In order to identify how far syntactic structures are retained in TEs this approach was felt to be the most beneficial.

### 6.2.6.3 Functions of the past participle form 'considered'

Past participles functioning as pre-modifying adjectives to nouns, such as for example 'considered action' or 'considered judgement', are excluded from the analysis.

### 6.2.6.4 Direct speech

The verb CONSIDER is often classified as 'verba sentiendi', a semantically defined class of verbs that denote processes of sensual perception, belief, opinion, thought, feeling, etc.

Syntactically these verbs represent reporting verbs (Sinclair 2005: 321). Occasionally these verbs are also used to indicate direct speech (55).
55) You must also consider: if we were to entertain such an idea ...

These occurrences were treated as indirect speech and are included in the pattern <sub objthat>. Whereas example sentence 56 , in favour of the surface structure, was analysed as <sub obj>.
56) Consider the following: this initiative involves ten Asian countries and fifteen European countries.

### 6.2.6.5 Idioms

As mentioned in section 6.2.2 the idiomatic phrase 'all things considered' $(57,58)$ represents an adjunct and is therefore excluded from the further analysis.

```
57) All things considered, we must respect the results.
57-G) Alles in allem müssen wir die Ergebnisse respektieren.
58) And all things considered, it was not a bad result for the international community.
58-G) Was dabei herauskam, war ingesamt gar nicht so schlecht für die internationale
    Gemeinschaft.
```

However, it is worth briefly looking at the TEs for these structures. There were 44 occurrences of this idiom in EuroParl. The most frequent TEs are 'alles in allem' (12 occurrences), 'insgesamt' (6 occurrences) and 'im Großen und Ganzen' (2 occurrences). Nine occurrences were classified as 'no translation', the remaining 15 occurrences of 'all things considered' each had a different TE. All the German translations also function as adjuncts $(57-\mathrm{G}, 58-\mathrm{G})$, indicating that there is a preference in translations to retain the sentence structure and functions of sentence elements if at all possible.

The issues discussed so far should make it apparent why the decision was taken to opt for a 'manual' analysis of a selection of randomly chosen concordance lines, rather than a
'mechanical' or 'automated' search based on word-class tagging when considering the methodological approach. Differentiating between the apparently 'same' surface structures would have been impossible with a mechanical search.

### 6.3 Valency Sentence Patterns of BELIEVE, FEEL and THINK

Analogous to the identification of the valency sentence patterns for CONSIDER, valency sentence patterns for the near-synonymous verbs BELIEVE, FEEL and THINK will be suggested, and specific issues relating to the valency sentence pattern identification of these verbs will be discussed.


Tab. 6.2: Valency sentence patterns of BELIEVE

### 6.3.1 BELIEVE

Table 6.2 shows a summary of the valency sentence patterns identified for the verb BELIEVE. BELIEVE occurs with ten different valency sentence patterns, seven fewer than CONSIDER. With the exception of the sentence pattern <sub prp-in> (59), BELIEVE shares its patterns with CONSIDER.
59) I do not believe in any fiscal or financial policy.

As with CONSIDER, a monovalent pattern <sub> is seen as uncommon usage and therefore rejected as an independent valency sentence pattern for the verb BELIEVE. Occurrences such as example 60 are included in the pattern <sub obj>.

```
60) So let us pray, let us hope and let us believe, and as for the rest, amen.
```

However, it has to be mentioned that these occurrences may also be interpreted as <sub prp-in>, since completion with a prepositional object is also possible. 60a and 60b show that both readings are possible.

60a) ... let us believe [it], ...
60b) ... let us believe [in it], ...

Occurrences such as example sentence 61 are treated as reported speech, i.e. as a thatclause (61a).
61) The cooperation so far between the European Union bodies involved allows us, I believe, to be optimistic about the future.
61a) I believe (that) the cooperation so far between the European Union bodies involved allows us to be optimistic about the future.

This is treated differently by other authors. For example, Herbst et al. (2004: 78) categorise the structure as 'SENTENCE' pattern, which they (ibid. p xvii) define as "a sentence or part of a sentence, which is introduced by the verb, which may precede, follow or be inserted in the sentence; usually separated by commas". There might be some justification for treating this as a separate pattern since not all verbs can occur in this structure. However, the structure
represents a reported structure and all verbs which take a reported clause or a quote can interrupt the reported clause or quote (Francis et al. 1996: 113, 117). Though less frequent, the structure also occurs with CONSIDER as examples 62 and 63 show. Therefore, this seems to be more of a point belonging to general grammar than to the lexicon. This is the decision taken in this analysis and structures such as 61 are included in the pattern <sub objthats.

```
62) Increasing traffic congestion would, I consider, further depress the economic health of
    the Blackburn area.
63) The police at all times, he considered, were people best avoided.
```

In cases where there is a valency pattern 'SENTENCE' or 'QUOTE' which has a bearing on the meaning, i.e. the TEs, this will be shown in the further analysis.

A similar issue is posed by the imperative structure 'believe me' as in example 64.
64) Otherwise that Europe will be depressing, and, believe me, the people will not support it when they are consulted by referendum.

The phrase functions as emphatic marker in the main clause and could therefore be treated as a unit of meaning in its own right representing an adjunct. However, it was decided to treat the structure as an inserted clause ('you believe me') and as such it belongs to the divalent pattern <sub obj>.

Most dictionaries list the structures 'BELIEVE so' and 'BELIEVE not', where the adverbs 'so' and 'not' directly follow the verb as in examples 65 and 66.
65) Is the definition of price stability too rigid? I believe so.
66) ..., is the Stability and Growth Pact an obstacle to recovery in Europe? I believe not.

These structures could warrant an analysis as valency sentence pattern <sub adv-so/not>. However, since the adverbs 'so' and 'not' refer back to a previous statement, generally a
question, to express that something previously said is either correct / true or incorrect / untrue, they are not merely representing place holders as, for example, the 'it' in 'I believe it' or 'I do not believe it'. Hence, 'so' and 'not' function as adjectives and can be analysed as shortened verbal phrases <sub obj adj> (65a, 66a):

65a) I believe it to be so. / I believe that it is so.
66a) I believe it not to be so (I don't believe it to be so.) / I believe that it is not so. (I don't believe that it is so.)

For this investigation the structures 'BELIEVE so' and 'BELIEVE not' are therefore included in the valency pattern <sub obj adj>. This analysis also works for the verb CONSIDER, which rarely occurs with 'so' (67) and almost never with 'not' (68).
67) This ought not to be unusual, but it is considered so.

67a) We consider it to be so.
68) The gambling den of Monte Carlo, once considered hot, now considered not, desperately required the publicity bonanza ...
68a) We consider it not to be so anymore. (We don't consider it to be so anymore.)

Although the structures 'BELIEVE so' and 'BELIEVE not' are listed in many dictionaries, their use is rare in EuroParl which gives further justification to include them into the valency pattern <sub obj adj>. There are only 14 occurrences in total of 'BELIEVE so' and eight occurrences of 'BELIEVE not'. The most frequent TEs for 'BELIEVE so' are the verb GLAUBEN with seven occurrences (65-G) and the Funktionsverbgefüge 'der Ansicht sein' with two instances. 'BELIEVE not' also has the verb GLAUBEN (5x) as its most frequent TE (66-G).

65-G) ... Ich glaube, ja.
66-G) ... Ich glaube nicht .

### 6.3.2 FEEL



Tab. 6.3: Valency sentence patterns of FEEL

With 17 identified valency sentence patterns (table 6.3) the verb FEEL can occur in a more varied syntactic environment than the verb CONSIDER. However, the two verbs CONSIDER and FEEL only share four patterns: the divalent patterns <sub obj>, <sub obj-that>, <sub objwh> and the trivalent pattern <sub obj vb-to-inf>. As with the previous verbs the monovalent sentence pattern <sub> was discarded as a pattern in its own right as an object complement can be assumed, and because of the low frequencies indicating a stylistic, rather than a syntactic, choice. Its occurrences were included in the divalent pattern <sub obj>.

FEEL can function as a copular verb (link verb) and as a regular verb. Copular verbs are a subcategory of verbs which describe or identify the subject. Halliday and Matthiessen (2004: 216) call them attributive or identifying clauses. The valency analysis of the sentence complements will show the difference in the various uses. Used as a copula verb FEEL will take a nominal or adjectival valency complement instead of an object complement. Nominal complements are noun phrases. In German they are in the nominative case and therefore easily recognised. Since the English language does not have declension, the identification of nominal complements relies on the correct reading by the researcher. For the initial analysis no nominal complement for the verb FEEL was found. Adjectival complements, however, are quite frequent (69).
69) I therefore feel entirely justified in describing those views as socialist.

Most notable in a comparison of FEEL with CONSIDER is that CONSIDER is never directly followed by an adjectival complement, while FEEL frequently is. The adjectival complements of FEEL can also be extended to a verb phrase, as example 69a shows.

69a) I therefore feel [myself] to be entirely justified in describing those views as socialist.

Adverbs do not generally function as obligatory valency complements. However, in structures as in example sentences 70 and 71 where the adverb is followed by a prepositional phrase
with 'about' they appear to be syntactically and semantically obligatory. These occurrences are categorised as the valency sentence pattern <sub adv prp-about>.

```
70) I feel strongly about holding a clear debate on terrorism.
71) Of course, the Council may feel differently about this, ...
```

In comparison, when the adverb is followed by a verbal clause with 'that' the adverb is syntactically not needed and could therefore be analysed either as facultative adverbial complement or as adjunct. Occurrences as example 72 are therefore categorised as <sub obj-thats.
72) We feel strongly that the project should be transparent.

The particle 'like' can follow the verb FEEL directly. Similar to 'as', 'like' is not a preposition as it does not govern a case. Unlike Fischer (1997: 131), who considers noun phrases governed by 'like' as adjectival complements, the current analysis applies a different reading of the surface structure and categorises them as nominal complements governed by 'like'. The pattern is therefore <sub nom-like>. The reason for this decision lies in the overall consistency of the analysis as illustrated in the following examples 18, 19 and 73 :

```
18) Parties who consider Professor Vermeersch as a moral beacon, ...
18a) Parties consider Professor Vermeersch as it / so. <sub obj nom-as>
19) ..., the Commission considers a reduction of the available budget as inappropriate.
19a) ..., the Commission considers a reduction of the available budget so. <sub adj-as>
73) ... the large Berber population feel like second-rate citizens ...
73a) They feel like it. <sub nom-like>
73b) They feel so. <sub adj-like>
```

Having accepted that 'as' and 'like' are not prepositions but particles that govern a nominal or adjectival complement, nominal complements allow substitution with the anaphora 'as it' and like it' (18a, 73a), which is not possible for adjectival complements. Adjectival complements only allow substitution with 'so' (19a). The categorisation of 'like' as an adjectival complement (73b) is therefore inconsistent with the differentiation of nominal and adjectival complements
in the analysis of 'as'. Therefore, 'like' introduces a nominal complement, which is either a noun phrase (73) or an ing-participle (74). Substitution with an anaphor shows that both surface structures are the same (73a, 74a).

```
74) I feel like telling the people affected that Parliament has done its homework but that the
    other two key players are neglecting their responsibilities.
74a) I feel like it but ...
```

This transposition or transference from one word class into another, in this case from a verb into a noun, is governed by the particle 'like'. These nouns are called 'verbal substantives' or 'verbal nouns' (Verbalsubstantive), though the general term 'nominalisations' is probably more popular in recent writing (Duden 2009: 726). The valency sentence patterns for occurrences such as 73 and 74 are <sub nom-like> and <sub nom-ing-like> respectively. As can be seen (see also table 6.1) it was decided not to introduce a new complement category, as suggested by Heringer (1970: 202), for the particles 'as' and 'like', but simply classify them as a sub-category of nominal or adjectival complements respectively. A third, but probably less suitable possibility for valency grammar, would have been to show the particles before the predicative complement, for example <sub obj as nom> or <sub like nom>. Although closer to the surface structure, this categorisation was not chosen as it places a focus on individual words rather than on syntactic categories and their functions. The same applies to the patterns <sub adj-as-if> and <sub adj-as-though>. 'As if' and 'as though' introduce an adjectival valency complement as substitution with the anaphor 'so' is possible (examples 75, 75a, 76 and 76a).
75) You feel as if you are facing a wall full of binder files.

75a) You feel so.
76) Well I must say, the arrogant way in which the Commission has responded to our legitimate questioning makes us literally feel as though we have been stabbed in the back.
76a) Well I must say, the arrogant way in which the Commission has responded to our legitimate questioning makes us literally feel so.

The valency sentence patterns (tables 6.1, p 173, and 6.3, p 198) for CONSIDER and FEEL with the particles 'like' and 'as' respectively show that, although both relate to predicative complements, 'as' relates to the object complement, i.e. it is a constituent in a trivalent sentence pattern of the verb CONSIDER, whereas 'like' refers back to the subject complement and is part of a divalent pattern of FEEL.

FEEL can also occur in structures with a correlate it, where it functions as preparatory subject. However, these seem to be extremely rare. For example, in EuroParl there were only 17 structures with a it-structure as preparatory subject. Seven of these had the patterns <it adj vb-to-inłs (77), four occurred with the pattern <it adj-as-if> (78), and two occurrences for each of the patterns <sub adj vb-ing> (79), <it adj vb-wh> (80) and <it nom-like> (81).

```
77) It feels important to debate this issue with you
78) It feels as if there is a genuine commitment to fighting the assault on human dignity ...
79) It feels slightly surreal wanting to talk about other aspects of the Summit apart from
    Iraq.
80) It felt so good when it stopped.
81) It felt like a privilege to be present at this historic event.
```

In the initial analysis (table 6.3) only the valency sentence pattern <it adj vb-to-int> was included as it is shared with the verb CONSIDER. However, the frequencies may prove too low to have an impact on the TEs.

### 6.3.3 THINK

The 19 identified valency sentence patterns for the verb THINK are shown in table 6.4. It could therefore be said that THINK is syntactically more varied than the verb CONSIDER, with which it shares nine patterns. These are the divalent patterns <sub obj>, <sub obj-that>, <sub obj-wh>, the trivalent patterns <sub obj nom>, <sub obj adj>, <sub obj vb-to-be-nom>,
<sub obj vb-to-be-adj> and the patterns with correlate it <sub it adj vb-that> and <sub it adj vb-to-ints.


Tab. 6.4: Valency sentence patterns of THINK

Most notable is that the verb THINK, in contrast to CONSIDER, has a monovalent sentence pattern (82), but rarely occurs with an object complement (83 and 84).

```
82) We must think before launching such an undertaking.
83) Yes, I did think that.
83a) Yes, I did think it.
84) Think towering heels, big gold jewellery.
84a) Think it.
```

As can be seen in example 82 the object in the monovalent pattern of THINK is not simply omitted and can be retrieved, but it is syntactically not required. Examples 83 and 84 show occurrences of the valency sentence pattern <sub obj>, where substitution with the anaphor 'it' is possible. Analogous to CONSIDER this divalent pattern also includes occurrences of direct speech.

Not all noun phrases that are following the verb function as object complements. For example, occurrences as in example sentences 85 and 86 , which are taken from dictionaries, are analysed as either adjuncts (85) or adjectival complements (86) respectively.

| 85) She thought [a bit] before beginning an argument. (Valency Dictionary of English 2004: 868) | - Adjunct |
| :--- | :--- |
| 86) I don't blame you for thinking [that way]. (Collins Cobuild English Dictionary 1995: 1736) | - Anaphor: [so] |
|  | - Adjectival Complement |

In 85 neither substitution with the anaphor 'it', indicating the noun phrase 'a bit' as object complement, nor substitution with the anaphors 'so' or 'as such', indicating the noun phrase as adjectival complement, are possible. 'A bit' indicates the duration of the thinking process, therefore substitution with the prepositional phrase 'for a bit' is most suitable. These occurrences are analysed as adjuncts, since the prepositional phrase 'for a bit' can be added to almost any verb. The noun phrase 'that way' in sentence 85 can be substituted with 'so', and is therefore analysed as adjectival complement <sub adj>.

THINK occurs frequently with a prepositional complement; the most common ones are 'of' (87) and 'about' (88). Prepositional complements are identified through substitution with 'preposition + personal pronoun' as shown in 87a and 88a.
87) I think of the parents of those teenagers.

87a) I think of them.
88) We must think about the safety of our children.

88a) We must think about it.

Whether 'THINK of' and 'THINK about' should be identified as individual units of meaning with their own valency complements, or form part of the valency sentence patterns of THINK could be debated. Categorisation as individual units increases the lexicon, inclusion with THINK increases the number of valency sentence patterns of THINK and makes its analysis somewhat messy. It was decided to follow standard dictionary practice and to treat 'of' and 'about' as prepositional complements of THINK forming a divalent sentence pattern.

Prepositional complements with 'of' also form part of the trivalent sentence patterns <sub prp-of nom-as> (89), <sub prp-of adj-as> (90) and <sub obj / adj / mod prp-of> (91) of THINK.

```
89) We think of Venice as an area with particular problems. <sub prp-ofnom-as>
90) Communities thought of one another as fundamentally separate. <sub prp-of adj-as>
91) What do you think of him? <sub obj/adj/mod prp-of>
```

As indicated by the pattern category, the pattern <sub obj / adj / mod prp-ot> ${ }^{20}$ includes three different complements following the verb. Since the pattern is not very frequent the three complements were combined in one category. Apart from the object complement as in 89, which could be answered with 'I wouldn't have thought it of him', an adjectival complement, as in 'People think ill of him', and modificational (adverbial) complements, as in It think badly of her', are possible. The pattern is restricted to pronouns following the preposition 'of'. For

[^19]example, the sentence 'I thought him capable of anything', which looks on the surface structure identical to the pattern <sub obj prp-of>, actually represents the valency sentence pattern <sub obj adj> since the preposition 'of' is a dependant of the adjective 'capable' and not of the verb THINK.

THINK can also occur with an adverb directly following the verb which functions as a modificational complement as in example sentences 92 and 93.

```
92) I suggest and request that we think hard.
93) They think differently from the dominant cultural or political power.
```

These occurrences are identified as the valency sentence pattern <sub mod>. However, occurrences such as examples 94 and 95 were not analysed as having an adverbial complement in the sentence pattern. As substitution with the anaphor 'so' (94a, 95a) is not possible, the adverbs are syntactically not required. Examples 94 and 95 are analysed as <sub prp-about>.

```
94) The Socialist Group has to think hard about the consequences of Mr Fantuzzi's proposal.
94a) The Socialist Group has to think *so about the consequences of Mr Fantuzzi's proposal.
95) We should think carefully about it.
95a) We should think *so about it.
```

Occurrences of 'THINK so', unlike 'BELIEVE so', are not included in the pattern <sub obj adj>. Since this structure appears to be more frequent with THINK, the sub-category <sub obj adj-so> was established. Within this category are also occurrences of 'THINK not' and 'THINK otherwise'.

Having established the valency sentence patterns, it is now possible to compare the valency sentence patterns of the verbs and investigate their frequencies.

### 6.4 Comparison of Verbs and Their Valency Sentence Patterns

The previous sections discussed the rationale for the identification and categorisation of the valency sentence patterns for the verbs CONSIDER, BELIEVE, FEEL and THINK. As mentioned, other researchers may identify other sub-categories depending on the purpose of their investigation. Furthermore, no claim of completeness is being made since the analysis is based on 600 randomly chosen concordance lines from three different corpora (200 lines each). However, it is claimed, as the following sections will show, that the chosen approach

|  |  | CONSIDER | BELIEVE | FEEL | THINK |
| :---: | :---: | :---: | :---: | :---: | :---: |
| sub |  |  |  |  | $\checkmark$ |
| sub obj |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| sub obj-that |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| sub obj-wh |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| sub obj-ing |  | $\checkmark$ |  |  |  |
| sub prp |  |  |  | $\checkmark$ | $\checkmark$ |
| sub prp-in |  |  | $\checkmark$ |  |  |
| sub prp-of |  |  |  |  | $\checkmark$ |
| sub prp-about |  |  |  |  | $\checkmark$ |
| sub adj |  |  |  | $\checkmark$ |  |
| sub adj-as-if/-as-though |  |  |  | $\checkmark$ |  |
| sub nom-like |  |  |  | $\checkmark$ |  |
| sub nom-ing-like |  |  |  | $\checkmark$ |  |
| sub adv |  |  |  |  | $\checkmark$ |
| sub adv-so |  |  |  |  | $\checkmark$ |
| sub obj nom |  | $\checkmark$ |  |  | $\checkmark$ |
| sub obj adj |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| sub obj nom-as |  | $\checkmark$ |  |  |  |
| sub obj adj-as |  | $\checkmark$ |  |  |  |
| sub obj vb-to-be-nom |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| sub obj vb-to-be-adj |  | $\checkmark$ | $\checkmark$ | $\checkmark$ | $\checkmark$ |
| sub obj vb-to-inf |  | $\checkmark$ | $\checkmark$ |  |  |
| sub obj adv |  |  |  |  | $\checkmark$ |
| sub adj vb-to-inf |  |  |  | $\checkmark$ |  |
| sub adj vb-ing |  |  |  | $\checkmark$ |  |
| sub adj vb-that |  |  |  | $\checkmark$ |  |
| sub adj prp |  |  |  | $\checkmark$ |  |
| sub adj prp-for |  |  |  | $\checkmark$ |  |
| sub adj prp-about |  |  |  | $\checkmark$ |  |
| sub adv prp-about |  |  |  | $\checkmark$ |  |
| sub prp-of nom-as/-like |  |  |  |  | $\checkmark$ |
| sub prp-of adj-as |  |  |  |  | $\checkmark$ |
| sub it nom vb-that |  | $\checkmark$ |  |  |  |
| sub it adj vb-that |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| sub it nom vb-to-inf |  | $\checkmark$ |  |  |  |
| sub it adj vb-to-inf |  | $\checkmark$ | $\checkmark$ |  | $\checkmark$ |
| it adj vb-to-inf |  |  |  | $\checkmark$ |  |

Tab. 6.5: Comparison of valency patterns of CONSIDER,
BELIEVE, FEEL and THINK
has provided the most frequent patterns for the verbs, which is a deciding factor for a contrastive analysis of valency sentence patterns between words and their TEs.

Table 6.5 gives an overview of the valency sentence patterns of the verbs CONSIDER, BELIEVE, FEEL and THINK. For CONSIDER 15 valency sentence patterns were identified, BELIEVE has the fewest number of patterns with ten different valency sentence patterns, THINK with 19 identified patterns has the most versatile syntactic environment, followed by FEEL with 17 valency sentence patterns.

As can be seen in table 6.5, four patterns, highlighted in red, can occur with all four verbs. These are the divalent patterns <sub obj>, <sub obj-that>, <sub obj-wh> and the trivalent pattern <sub obj vb-to-be-adj>. Another four patterns, highlighted in grey, occur with the three verbs CONSIDER, BELIEVE and THINK. These are the trivalent patterns <sub obj adj>, <sub obj vb-to-be-nom>, and the patterns with correlate it <sub it vb-that> and <sub it vb-to-ints.

From a monolingual point of view it is interesting to investigate to what degree the verbs sharing the same valency sentence patterns are interchangeable. As the example sentences below show, the verbs CONSIDER, BELIEVE, FEEL and THINK are not always a suitable alternative for each other.

## <sub obj>

4) We consider / ?*believe /*feel /*think the problem.
5) The people of East Timor believed / *considered /*felt /*thought us.
6) They do not feel / *?consider / *believe /*think any pressure.
7) I thought /?considered /*felt / ?*believed the unheard of.
<sub obj-that>

| 5) | We consider | / believe <br> / consider | $\begin{aligned} & \text { / feel } \\ & \text { / feel } \end{aligned}$ | / think that this is not a single party issue. <br> / think [that] the Commission should monitor |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | I believe |  |  |  |  |
| developments. |  |  |  |  |  |
| 100) | I feel | / consider | / believe | / think | [that] this is a reasonable suggestion. |
| 101) | I think | / consider | / believe | / feel | that we really do need a careful report |

<sub obj-wh>

```
6) We consider /*believe /*feel /*think whether the Commission can take further
    legal measures.
102) You don't believe / ?consider /*feel /*think what you are saying.
103) The population feels / ?considers / ?believes /*thinks how strong the opposition is.
104) I think / consider / believe / feel what is happening today represents the
    completion of their cooperation.
```

<sub obj vb-to-be-adj>
24) I consider / believe
105) The Commission believes / ? think Amendment No 59 to be problematic.
/ considers / ?feels / ?thinks both proposals to be acceptable.
106) ... a Europe which I feel
/ $\underline{\text { consider }}$ / believe / think to be too liberal.
107) This mortality is thought
/ considered

Only for the valency sentence pattern <sub obj-that> (5, 99-101) are all four verbs exchangeable with little or no change in meaning. For the pattern <sub obj adj-vb-to-be> (24, 105-107) substitution for active clauses seems strange for FEEL and THINK (24, 105). However, when changing the active clauses into passives exchange seems perfectly acceptable (24a, 105a).
24a) Amendment No $59 \underline{\text { is considered }} \quad$ / is believed $\quad$ / is felt
I I is thought to be problematic.
105a) Both proposals are believed $\quad$ are considered $\quad$ / are felt
/ are thought to be acceptable.

For the patterns <sub obj> (4, 96-98), <sub obj-wh> (6, 102-104) substitution is not possible, which indicates that factors beyond the valency sentence pattern, such as other grammatical, functional or semantic considerations, need to be taken into account. For example, sentence 96 includes a dative object (question: whom?), and the hypothesis could be stated that only the verb BELIEVE, but not the near-synonymous verbs CONSIDER, FEEL and THINK, can be followed by a dative object. In contrast, semantic restrictions on the object seem to prevent an exchange in 4, 97 and 98.

For the patterns <sub obj> (4, 96-98) and <sub obj-wh> (6, 102-104) the verbs CONSIDER and BELIEVE almost seem to contradict each other. What is 'considered' cannot be 'believed' at the same time. There seems to be a semantic difference in word meaning between these two verbs despite the same valency sentence pattern. This might be due to different functions of the wh-clauses following the verbs. While wh-clauses following BELIEVE generally function as relative pronouns referring to the content or the extent of what is believed (102), they never function as an interrogative as they do for CONSIDER (6).

FEEL followed by a noun phrase or a wh-clause as object relates to a mental or physical awareness, experience or a sensation (97, 103), but never to a mental process, and
therefore expresses a different meaning to $\operatorname{CONSIDER}(4,6)$. Hence substitution is not possible.

The verb THINK, as mentioned previously, very rarely occurs with a noun phrase in object position. Fischer (1997: 118) notes that "for many verbs governing a prepositional complement (near-)synonymous verbs governing a direct complement can be found". This seems to be the case for THINK with the prepositional complement 'about', where Fischer sees CONSIDER as a near-synonym.

```
4) We consider / think about the problem.
6) We consider / think about whether the Commission can take further legal measures.
```

As sentences 4 and 6 show, substitution with 'think about' is viable in both cases. This example shows that semantically similar words do not always take the same valency sentence pattern. Sometimes a change in the syntactic structure of the sentence is required when choosing an alternative expression.

For the four valency sentence patterns highlighted in grey in table 6.5 for the three verbs CONSIDER, BELIEVE and THINK, substitution with each other seems to be acceptable as the sentences below show: <sub obj adj> (17), <sub obj vb-to-be-nom> (23), <sub it adj vbthat> (50) and <sub it adj vb-to-int> (108).

```
17) We consider / believe / think them dangerous.
23) I consider / believe / think monetary stability to the only duty ...
50) I consider / believe / think it essential that we take prompt action.
108) We consider /believe /think it necessary to discuss this topic.
```

This brief monolingual investigation into near-synonymous verbs would need more in-depth analysis to produce reliable findings. However, since the focus of this thesis is contrastive linguistics a more detailed analysis is not possible. Nevertheless, the above findings may be confirmed in the analysis of the TEs. For example, it can be hypothesised that CONSIDER
and BELIEVE will not have the same TEs when they occur in the sentence pattern <sub obj>, but will, for example, share TEs for the sentence pattern <sub obj adj> or that CONSIDER with the pattern <sub obj> will have the same TEs as THINK with the pattern <sub prp-about>.

However, as stated by Moon (1987: 99) translation differences are not "particularly relevant" for differentiation of senses in monolingual dictionaries, since differences between all languages cannot be taken into account. Whilst this statement is probably true regarding meaning identification, contrastive analysis can still have its uses in monolingual dictionaries, as stated by Aijmer and Altenberg (1996: 12) contrastive analysis can give new insights into the languages compared - "insights that are likely to be unnoticed in studies of monolingual corpora". It is therefore hoped that this study also contributes to the understanding of synonymous verbs and their substitutability from a monolingual perspective.

The study so far seems to indicate that, contrary to my original hypothesis, near-synonymous verbs sharing the same valency sentence pattern are not suitable substitutions for each other per se, but that other aspects may play a role. However, it could also be that the reason for the inconsistency of the above monolingual findings is that the identified valency sentence patterns are not viable for either one or more verbs under investigation. The viability of the patterns will be investigated in the next section.

### 6.5 Frequencies of the Identified Valency Sentence Patterns

Frequency analysis provides information about the usage of words, i.e. the occurrence of a word with a certain valency sentence pattern. It can be expected that for a contrastive comparison translators and language learners encounter the frequent structures regularly. Frequency analysis will also show that an alternative expression or TE may be a
grammatically correct substitute, but it may be less frequently used and therefore represent a marked occurrence.

Tables 6.6 to 6.9 show the valency sentence pattern distribution of CONSIDER, BELIEVE, FEEL and THINK for 200 randomly chosen concordance lines from the corpora EuroParl and BoE. As can be seen, the OMC corpus had fewer than 200 occurrences of the verb CONSIDER in total. Due to the different genres of the corpora, variation in the valency pattern distribution is expected. However, despite some differences an overall similar tendency is notable, which indicates that the verbs CONSIDER, BELIEVE, FEEL and THINK occur frequently with certain valency sentence complementation patterns irrespective of their context.


Tab. 6.6: Frequencies of the valency sentence patterns of CONSIDER

The most frequent sentence pattern for CONSIDER (table 6.6), highlighted in grey, in all three corpora is <sub obj>. The monolingual BoE corpus shows a higher frequency of the pattern <sub obj-ing> than the two translation corpora. CONSIDER followed by a that-clause
in object position is notably more frequent in EuroParl compared with the other two corpora. This is probably due to EuroParl being a semi-spoken corpus where mental verbs are an important device used to express stance (Biber et al. 1999: 663). Shortened infinitive clauses representing a nominal or adjectival complement, <sub obj nom> and <sub obj adj>, are frequent in all four corpora, but the extended infinitive clauses in the patterns <sub obj vb-to-be-nom> and <sub obj vb-to-be-adj> are relatively more frequent in the EuroParl corpus.

Table 6.7 shows that the verb BELIEVE occurs predominantly with a that-clause in object position <sub obj-that> in all three corpora. However, this valency sentence pattern is especially frequent in EuroParl, making up 91\% of the occurrences. Other recurrent patterns are <sub obj> and <sub prp-in>.


Tab. 6.7: Frequencies of the valency sentence patterns of BELIEVE

The distribution of the valency sentence patterns of the verb FEEL, shown in table 6.8, vary considerably between the three corpora.

| FEEL |  | EuroParl 200 lines |  |  | BoE 200 lines |  | $\begin{array}{\|l\|} \hline \text { OMC-EO } \\ \text { Total } \end{array}$ | \% | OMC-ET |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | \% | Total | \% |  |  | Total | \% |
| sub obj |  |  | 22 | 11\% | 44 | 22\% | 36 | 36\% | 32 | 32\% |
| sub obj-that |  |  | 133 | 67\% | 42 | 21\% | 15 | 15\% | 9 | 9\% |
| without 'that' |  |  | 38 |  | 30 |  | 10 |  | 7 | 7\% |
| sub obj-wh |  |  |  |  | 1 | 1\% |  |  |  |  |
| sub prp |  |  |  |  | 4 | 2\% |  |  | 3 | 3\% |
| sub adj |  |  | 20 | 10\% | 71 | 36\% | 31 | 31\% | 33 | 33\% |
| sub vb-as-if / vb-as-though |  |  | 3 | 2\% | 3 | 2\% |  |  | 4 | 4\% |
| sub nom-like |  |  |  |  | 11 | 6\% | 6 | 6\% | 5 | 5\% |
| sub nom-ing-like |  |  | 1 | 1\% | 1 | 1\% |  |  | 2 | 2\% |
| sub obj vb-to-be-adj |  |  | 3 | 2\% |  |  |  |  | 2 | 2\% |
| sub adj vb-to-inf |  |  | 11 | 6\% | 5 | 3\% | 5 | 5\% | 4 | 4\% |
|  | prounoun |  | 1 |  |  |  | 1 |  | 1 |  |
| sub adj vb-ing |  |  |  |  | 2 | 1\% |  |  | 1 | 1\% |
| sub adj vb-that |  |  | 2 | 1\% | 2 | 1\% | 2 | 2\% | 2 | 2\% |
| sub adj prp |  |  |  |  | 3 | 2\% | 1 | 1\% | 1 | 1\% |
| sub adj prp-for |  |  |  |  | 5 | 3\% | 2 | 2\% | 2 | 2\% |
| sub adj prp-about |  |  | 3 | 2\% | 4 | 2\% | 1 | 1\% |  |  |
| sub adv prp-about |  |  | 2 | 1\% | 1 | 1\% |  |  |  |  |
| it adj vb-to-be-adj |  |  |  |  | 1 | 1\% | 1 | 1\% |  |  |
| TOTAL |  |  | 200 | 100\% | 200 | 100\% | 100 | 100\% | 100 | 100\% |

Tab. 6.8: Frequencies of the valency sentence patterns of FEEL

The three most frequent patterns of FEEL in all three corpora are <sub obj>, <sub obj-that> and <sub adj>. However, whereas in the EuroParl corpus the valency sentence pattern with a that-clause in object position is notably more common with $67 \%$ of all occurrences, the preference for one of these three patterns is lower in the other two corpora, i.e. the patterns are more evenly distributed. The monolingual BoE corpus shows a slight preference for the pattern <sub adj> with $36 \%$ of all occurrences, while in the OMC the patterns <sub obj> and <sub adj> are most frequent with just above 30\% each of all occurrences.

In table 6.8 a pronoun occurring between the verb and the adjective in the pattern <sub adj vb-to-ints as in example sentence 109 is also shown.

[^20]These pronouns are generally treated in valency analysis as adjuncts and are therefore not shown in the valency sentence analysis of the verb FEEL (table 6.3). These occurrences are only included in the frequency analysis to investigate whether they are commonly used and could represent an idiomatic pattern. But, as can be seen, this is not the case. While looking into these occurrences I noted that whether a pronoun can be added or not seems to depend on the adjective following the verb and not on the verb FEEL itself as demonstrated in example 110. However, such a claim would need further investigation.

```
110) The Council and the Commission felt ?themselves able to adopt the ideas in the European
    Parliament's proposal.
```

The most frequent pattern for the verb THINK is <sub obj-that> (table 6.9). Unlike for the verbs CONSIDER, BELIEVE and FEEL this pattern is equally prominent in all three corpora, though EuroParl again shows a stronger preference, with 81\% of all occurrences, for this pattern than the other two corpora.

| THINK | EuroParl 200 lines |  | BoE 200 lines |  | OMC-EO | \% | OMC-ET |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | \% | Total | \% | Total |  | Total | \% |
| sub |  |  | 3 | 2\% |  |  | 2 | 2\% |
| sub obj |  |  | 4 | 2\% | 1 | 1\% | 7 | 7\% |
| sub obj-that | 161 | 81\% | 128 | 64\% | 72 | 72\% | 50 | 50\% |
| without 'that' | 96 |  | 110 |  | 58 |  | 46 |  |
| sub obj-wh | 1 | 1\% | 3 | 2\% | 2 | 2\% | 2 | 2\% |
| sub prp |  |  | 1 | 1\% |  |  | 2 | 2\% |
| sub prp-of | 18 | 9\% | 17 | 9\% | 9 | 9\% | 20 | 20\% |
| sub prp-about | 5 | 3\% | 27 | 14\% | 10 | 10\% | 8 | 8\% |
| sub adv | 3 | 2\% | 2 | 1\% |  |  |  |  |
| sub adv-so | 3 | 2\% | 3 | 2\% | 2 | 2\% | 1 | 1\% |
| sub obj nom |  |  | 1 | 1\% |  |  |  |  |
| sub obj adj | 6 | 3\% | 1 | 1\% |  |  | 3 | 3\% |
| sub obj vb-to-be-nom |  |  | 3 | 2\% |  |  | 1 | 1\% |
| sub obj vb-to-be-adj |  |  |  |  | 1 | 1\% |  |  |
| sub prp-of nom- as/like |  |  | 4 | 2\% | 2 | 2\% | 1 | 1\% |
| sub prp-of adj-as |  |  | 1 | 1\% |  |  | 1 | 1\% |
| sub obj adv | 2 | 1\% | 1 | 1\% |  |  |  |  |
| sub it adj vb-that |  |  |  |  |  |  | 1 | 1\% |
| sub it adj vb-to-inf | 1 | 1\% | 1 | 1\% | 1 | 1\% | 1 | 1\% |
| TOTAL | 200 | 100\% | 200 | 100\% | 100 | 100\% | 100 | 100\% |

Tab. 6.9: Frequencies of the valency sentence patterns of THINK

Furthermore, a prepositional complement with 'about' or 'of' is also typical with THINK. Some differences between the three corpora are notable for prepositional complements. Whilst in EuroParl and the OMC-ET the prepositional complement with 'of' is more frequent, in the BoE the preposition 'about' occurs more often, and in OMC-EO the distribution of the two prepositions is almost equal.

However, this research is not concerned with identifying differences between different genres of translated texts, nor is it concerned with differences in translation direction as such. This research is interested in the local grammar of words, in particular how syntax characteristics of a word are adjusted to the syntactic requirements of the translated target language.

Table 6.10 gives an overview of the frequencies of the valency sentence patterns of the verbs CONSIDER, BELIEVE, FEEL and THINK combined for all three corpora. Although the verbs are often described as near-synonyms they seem to have different preferred syntactic environments which distinguish them from each other. The verbs CONSIDER and FEEL show less preference for a valency sentence pattern than BELIEVE and THINK, which both occur predominantly with the pattern <sub obj-that>. Yet, the most frequent valency sentence pattern for FEEL is still <sub obj-that> with $33 \%$, followed by <sub adj> with $26 \%$ and <sub obj> with $22 \%$. The most frequent pattern for CONSIDER is <sub obj> with $37 \%$. However, taking all the valency sentence patterns of occurrences with a nominal or adjectival complement together these add up to $40 \%$ for CONSIDER and to $45 \%$ for FEEL. But the sentence pattern of FEEL rarely includes an object complement, while the sentence patterns for CONSIDER with a nominal or adjectival complement always include an object complement, thus distinguishing the two verbs. BELIEVE and THINK are similar to CONSIDER in that they cannot be followed by a nominal or adjectival complement directly but always require an object complement in the sentence structure. Prepositional complements directly following the verb are a dependant of the verb, i.e. they are verb
specific. The preposition 'in' is specific to BELIEVE, while the prepositions 'of' and 'about' are specific to THINK. The verbs CONSIDER and FEEL do not occur with a preposition immediately following the verb.


Tab. 6.10: Comparison of frequencies of the valency patterns of CONSIDER, BELIEVE, FEEL and THINK

The frequency analysis has shown that there are not only notable differences in the local grammar, i.e. the valency sentence patterns, of the near-synonyms CONSIDER, BELIEVE, FEEL and THINK, but also that there are usage or preference differences within the shared patterns amongst the verbs.

### 6.6 Conclusion

In the first step of the analysis the valency sentence patterns for the verbs under investigation had to be identified. It was noted that any syntactic analysis is based on theoretical assumptions and constructs and is therefore partly subjective and generally based on the purpose of an investigation. The 'real' language data taken from corpora highlighted some issues with regard to the sometimes ambiguous surface structures of sentences and their interpretation as valency sentence patterns, and the rationale for the decisions taken was discussed.

A comparison of the identified valency sentence patterns for the verbs CONSIDER, BELIEVE, FEEL and THINK has shown that the apparently near-synonymous verbs have their own local grammar and only share a few patterns. The frequency analysis revealed that even amongst the shared patterns the verbs tend to 'prefer' different syntactic environments, i.e. they occur more frequently with one pattern than with another. Furthermore, it has been shown that valency sentence patterns are not per se an indicator for substitution of nearsynonymous verbs in a language, but that other factors, e.g. general grammar, function of a sentence element or semantic considerations may also play a role. Exchange of nearsynonymous verbs may thus also involve changes in the syntactic structure of the sentence, depending on the chosen alternative expression.

These findings are not surprising as such and are generally accepted in language theory. However, what keeps surprising me is that they are, at least in my opinion, still very haphazardly followed up in applied linguistics, especially in bilingual applied linguistics. This issue will be addressed in chapter 7. But first I would like to briefly describe current praxis in monolingual English dictionary compilation.

| CONSIDER | verb <br> [with object] <br> 1 think carefully about (something), typically before making a decision: each application is considered on its merits <br> 2 believe to be ; think: <br> [with object and infinitive] : <br> at first women were considered to be at low risk from HIV <br> [with clause] : <br> I don 't consider that I'm to blame <br> 3 regard (someone or something) as having a specified quality: [with object and complement] : <br> I consider him irresponsible |
| :---: | :---: |
| THINK | verb (past and past participle thought ) <br> [with clause] <br> 1 have a particular belief or idea: <br> she thought that nothing would be the same again <br> (be thought) it's thought he may have collapsed from shock <br> [with infinitive] : <br> up to 300 people were thought to have died <br> 2 [no object] direct one's mind towards someone or something; use one's mind actively to form connected ideas: he was thinking about Colin <br> [with object] : <br> any writer who so rarely produces a book is not thinking deep thoughts |
| BELIEVE | verb <br> [with object] <br> 1 accept that (something) is true, especially without proof: the superintendent believed Lancaster's story <br> [ with clause] : <br> some 23 per cent believe that smoking keeps down weight <br> 2 [no object] have religious faith. <br> 3 [with clause] hold (something) as an opinion; think: I believe we've already met |
| FEEL | verb (past and past participle felt ) <br> [with object] <br> 1 be aware of (a person or object) through touching or being touched: <br> she felt someone touch her shoulder <br> be aware of (something happening) through physical sensation:she felt the ground give way beneath her <br> [no object] <br> be capable of sensation: <br> the dead cannot feel <br> [no object, with complement] <br> give a sensation of a particular physical quality when touched: <br> the wool feels soft <br> 2 experience (an emotion or sensation): <br> I felt a sense of excitement <br> [ $n$ o object, with complement : <br> she started to feel really sick <br> [no object, with complement] <br> consider oneself to be in a particular state or exhibiting particular qualities: <br> he doesn't feel obliged to visit every weekendshe felt such a fool |

Tab. 6.11: Extracts from Oxford Dictionaries Online for CONSIDER, THINK, BELIEVE and FEEL

Nowadays, most dictionaries include some syntactic information on the local grammar of words, although this still seems rather arbitrary and varies from dictionary to dictionary. For example, in monolingual English dictionaries a wide range of more or less detailed grammatical information can be found ranging from the simple information on whether a verb is transitive or intransitive (e.g. Longman Dictionary of Contemporary English 2003), over information on the word-class of complements (e.g. Collins Cobuild English Dictionary 1995, Valency Dictionary of English 2004, or Oxford Advanced Learner's Dictionary 2005), to information on the syntactic functions of complements (e.g. Oxford Online Dictionary). For exemplification extracts from the latter are listed in table 6.11 for the verbs CONSIDER, BELIEVE, THINK and FEEL.

As can be seen an identified sense or meaning of a verb is linked to a specific syntactic environment, i.e. it is assumed that there is a connection between the sense of a word and its complements. Whether such a strong interconnectedness between meaning and syntactic environment is justified remains and probably will always be open to discussion, since word senses in monolingual studies are based on the interpretation of the researcher. However, in bilingual studies word meaning can clearly be identified through investigation of the TEs.

Chapter 7 will look at what happens when translating the verbs CONSIDER, BELIEVE, FEEL and THINK into German. Of special interest in this investigation are the two questions: Do the identified syntactic valency sentence patterns for the verbs under investigation relate to TEs, i.e. word senses in German? Do the German TEs take the same valency complements as the English verbs or do they require syntactic changes?

## 7 CASE STUDY: ‘CONSIDER’

## - VALENCY SENTENCE PATTERNS AND TRANSLATION EQUIVALENTS -

### 7.1 Introduction

Having identified the valency sentence patterns of CONSIDER (cf. chapter 6, p 170) it is now possible to investigate whether these are linked to the choice of a TE in a contrastive study. Translations are understood to be interpretations of meaning in another language. The two multilingual parallel corpora, EuroParl and OMC, are also used for this investigation. It is hypothesised that the translation corpora will show certain conventions with regard to the choice of TEs.

As a first step the range of possible TEs for CONSIDER will be investigated in section 7.2. Possible TEs can be identified by using bilingual dictionaries or through investigation of parallel corpora. It will be shown that although both approaches indicate mainly the same key TEs, the focus in the presentation of the TEs is different. For example, bilingual dictionaries present the TEs as phrases. However, in the investigation of corpus lines it becomes notable that many phrases are less dominant than could be assumed based on the dictionary entries, but syntactic and structural differences between the languages, i.e. the local grammar of words, come to the forefront of a comparison.

In this section it will also be seen that translations are generally not reversible, i.e. work in both language directions equally well. For example, an investigation into the TE ÜBERLEGEN will show that while CONSIDER is the most frequent TE of ÜBERLEGEN, this is not the case the other way round, i.e. ÜBERLEGEN is not the most frequent TE of CONSIDER.

For a comparison with the near-synonymous verbs BELIEVE, FEEL and THINK of CONSIDER, section 7.3 will investigate their TEs. It will be shown that the number of shared TEs amongst the near-synonymous verbs is relatively small. Section 7.4 will first investigate whether the individual valency sentence patterns of CONSIDER show any preferences for certain TEs. It will be shown that valency sentence patterns are to some degree an indicator for the choice of TE. However, a comparison of the shared TEs of the near-synonymous verbs CONSIDER, BELIEVE, FEEL and THINK will show that it is the combination of verb plus valency sentence pattern which guides the choice of a TE. This means that, for example, a TE might be the preferred TE for CONSIDER with one pattern, and for THINK with another pattern.

Section 7.5 will compare the valency sentence patterns of the most frequent TEs of CONSIDER with the valency sentence patterns of CONSIDER. It will be shown that the preferred TEs are most likely to occur with the same pattern as CONSIDER. The more syntactic changes a TE requires, the less likely it is to be chosen as a TE. Within this investigation the suitability for exchange of TEs sharing the same pattern of CONSIDER will be looked into. Although it is acknowledged that substitution is to a large extent subjective and based on personal interpretation of a text, it seems plausible to suggest that TEs sharing the same pattern of CONSIDER are relatively freely exchangeable.

### 7.2 The German Translation Equivalents of CONSIDER

There are two possibilities to identify the TEs of a word or a translation unit. The first option, possibly the preferred option of translators and language learners, is reference to a dictionary. The second option is using a parallel corpus. Section 7.2 .1 will look at the TEs suggested in some English-German bilingual dictionaries (cf. section 8.3, p 288), and section 7.2.2 will look at the findings from the investigation of parallel corpora. In section 7.2.3 the

TEs provided in the dictionaries and those found in the corpora will be compared. As will be seen, the comparison will highlight some possible shortcomings of bilingual dictionary entries.

### 7.2.1 Bilingual Dictionary Entries



Tab. 7.1: Comparison of dictionary entries for CONSIDER: English - German

Figure 7.1 shows the TE entries for the verb CONSIDER in the following bilingual EnglishGerman dictionaries: Collins (2004), Cambridge Klett (2002), Cassell's (1978), and Langenscheidt's (1989). As can be seen CONSIDER occurs with different numbers of meanings, i.e. TEs, in the various dictionaries.

Cambridge Klett shows three different meaning entries, while Cassell's gives six, Collins seven and Langenscheidt's ten TEs. Generally bilingual dictionaries list their entries by the likelihood of the TEs, this means the most suitable and or frequent TEs are listed first. As can be seen Cassell's shows different TEs in first position compared with the other dictionary entries. The German verbs NACHDENKEN (highlighted in grey) and ÜBERLEGEN (highlighted in yellow) are, however, within the first entries in all dictionaries, indicating that these represent the most likely translation of CONSIDER into German. Since those two verbs occur, with the exception of Langenscheidt's, under one meaning entry it appears that they are also near-synonyms, i.e. express the same meaning.

Cassell's and Langenscheidt's also provide information on whether CONSIDER is used transitively or intransitively, which apparently results in different TEs. Some information on the local grammar of the TEs is provided in all four dictionaries. For example, it is pointed out that the TE ÜBERLEGEN occurs with a dative in indirect object position, as in example sentence 1 (underlined), while NACHDENKEN occurs with the preposition 'über' followed by a noun phrase in the accusative case (double underlined) as exemplified in sentence 2.

```
1-G) Wir müssen uns geeignete Schritte überlegen.
1) We would have to consider what action to take.
2-G) Das Parlament wird über dieses Thema nachdenken.
2) Parliament will consider this issue.
```

Apart from the order of entry for the TEs, bilingual dictionaries provide very little information on the choice of TE, i.e. which the most suitable TE for CONSIDER in a given English sentence might be, nor do they provide information on possible structural differences or similarities between English and German based on the chosen TE.

In the next section I will look at two parallel corpora in order to investigate CONSIDER in actual language use and its interpretation in translation, i.e. its most frequent TEs.

### 7.2.2 Translation Equivalents of CONSIDER in Parallel Corpora

This investigation is based on the EuroParl corpus. However, since EuroParl is often criticised as being too specialised and not reflecting typical language use, data from the OMC corpus is provided for comparison. As with the investigation into frequency, it will be seen that the findings of both corpora are quite similar.

Starting with the analysis of 200 randomly chosen concordance lines from EuroParl a surprisingly wide range of TEs for CONSIDER were identified. 68 different translation possibilities, listed in table 7.1, were identified. Working with the assumption that two or fewer occurrences could be chance occurrences, based on the personal creative preferences of the translators, and are therefore not relevant, only TEs with more than two incidents were seen as relevant and are highlighted in grey in the column 'TOTAL' in table 7.1. This still leaves 20 possible translation equivalents for the verb CONSIDER, which are either a verb or a noun. In order of frequency these are:

| HALTEN | $20 x$ |
| :--- | :--- |
| BETRACHTEN | $12 x$ |
| ANSEHEN, NACHDENKEN | $8 x$ each |
| BERÜCKSICHTIGEN, Erachtens | $7 x$ each |
| BEDENKEN, Betracht, PRÜFEN | $6 x$ each |
| Auge/Augen, Ansicht, DENKEN, ERWÄGEN, |  |
| FINDEN, Meinung | $5 x$ each |
| Auffassung, BEFASSEN, BEHANDELN, ERACHTEN | $4 x$ each |
| ÜBERLEGEN | $3 x$ |

Verbs, shown in capital letters, represent the lemma. It has to be noted that at the present stage only one word is given as TE. However, it be shown later that the translation unit is often actually a multi-word unit.

|  | consider | considered |  | considers | considering | TOTAL | EURO- <br> PARL <br> SEARCH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | active | passive |  |  |  |  |
|  | 200 concordance lines |  |  |  |  |  | 14,241 |
| achten | 1 |  |  |  |  | 1 | 55 |
| Auge / Augen | 4 |  | 1 |  |  | 5 | 184 |
| auffassen |  |  | 1 |  |  | 1 | 8 |
| Auffassung | 1 |  | 1 | 2 |  | 4 | 586 |
| analysieren | 1 |  |  |  |  | 1 | 30 |
| Anbetracht |  |  |  |  | 1 | 1 | 64 |
| anrechnen |  |  | 1 |  |  | 1 | 21 |
| ansehen |  |  | 4 | 4 |  | 8 | 383 |
| Ansicht / Ansichten | 4 |  |  | 1 |  | 5 | 738 |
| aufgreifen | 1 |  |  |  |  | 1 | 64 |
| ausgehen |  |  |  | 1 |  | 1 | 47 |
| beachten | 1 |  |  |  | 1 | 2 | 64 |
| bedenken | 5 | 1 |  |  |  | 6 | 291 |
| bedeuten |  |  | 1 |  |  | 1 | 148 |
| befassen | 1 | 1 | 1 |  | 1 | 4 | 216 |
| befürchten |  |  | 1 |  |  | 1 | 18 |
| behandeln |  |  | 2 | 1 | 1 | 4 | 281 |
| Behandlung |  |  |  |  | 2 | 2 | 74 |
| beimessen | 1 |  |  |  |  | 1 | 36 |
| berücksichtigen | 1 |  | 5 |  | 1 | 7 | 593 |
| Berücksichtigung |  |  | 1 |  | 1 | 2 | 137 |
| betrachten | 7 |  | 5 |  |  | 12 | 1,007 |
| Betracht | 4 |  | 1 |  | 1 | 6 | 240 |
| beraten |  | 1 |  |  |  | 1 | 71 |
| Blick | 1 |  |  |  |  | 1 | 51 |
| beurteilen |  |  | 1 |  |  | 1 | 65 |
| bewerten | 1 |  | 1 |  |  | 2 | 82 |
| darstellen | 1 |  |  |  |  | 1 | 76 |
| denken | 2 |  | 2 |  | 1 | 5 | 430 |
| Diskussion |  |  | 1 |  |  | 1 | 108 |
| einstufen |  |  | 1 |  |  | 1 | 39 |
| empfinden |  |  | 1 |  |  | 1 | 59 |
| erachten | 2 |  | 1 | 1 |  | 4 | 237 |
| Erachtens | 6 |  | 1 |  |  | 7 | 310 |
| erachteten | 1 |  |  |  |  | 1 |  |
| erörtern |  |  | 2 |  |  | 2 | 143 |
| erscheinen | 1 |  |  |  |  | 1 | 162 |
| erwägen | 4 |  |  |  | 1 | 5 | 260 |
| Erwägung |  |  | 2 |  |  | 2 | 242 |
| festlegen | 1 | 1 |  |  |  | 2 | 84 |
| finden | 4 |  |  | 1 |  | 5 | 361 |
| Frage |  |  |  |  | 1 | 1 | 773 |
| Gedanken | 1 |  |  |  |  | 1 | 116 |
| gelten |  | 1 |  |  |  | 1 | 314 |
| halten | 15 |  |  | 5 |  | 20 | 1,730 |
| handeln |  |  | 1 |  |  | 1 | 237 |
| heranziehen |  | 1 |  |  |  | 1 | 10 |
| meinen | 1 |  |  |  |  | 1 | 237 |
| Meinung | 5 |  |  |  |  | 5 | 622 |
| nachdenken | 7 | 1 |  |  |  | 8 | 475 |
| Nachdenken | 1 |  |  |  |  | 1 |  |
| nehmen | 1 |  |  |  |  | 1 | 291 |
| prüfen | 4 |  |  |  | 2 | 6 | 774 |
| Prüfung |  |  |  |  | 2 | 2 | 148 |
| schätzen |  | 1 |  |  |  | 1 | 51 |
| sehen | 1 |  | 1 |  |  | 2 | 423 |
| Sicht | 1 |  |  |  |  | 1 | 133 |
| sorgen | 1 |  |  |  |  | 1 | 107 |
| stichhaltige |  | 1 |  |  |  | 1 | 4 |
| überdenken | 2 |  |  |  |  | 2 | 70 |
| überlegen | 3 |  |  |  |  | 3 | 347 |
| überlegenswert | 1 |  |  |  |  | 1 | 7 |
| überprüfen |  | 1 |  |  |  | 1 | 66 |
| untersuchen |  |  |  |  | 1 | 1 | 92 |
| vorsehen |  |  |  |  | 1 | 1 | 143 |
| Wert | 1 |  |  |  |  | 1 | 77 |
| wohldurchdacht |  | 1 |  |  |  | 1 | 40 |
| no translation | 5 |  | 4 | 1 | 4 | 14 |  |
|  | 106 | 11 | 44 | 17 | 22 | 200 | 15,352 |

Tab. 7.2: Translation equivalents of CONSIDER for 200 randomly chosen concordance lines from EuroParl

Looking at table 7.2 it is notable that the verb CONSIDER is not always translated as a verb, but that the meaning in German is expressed with a noun, e.g. 'Erachtens', 'Betracht', 'Auge' or 'Ansicht', which form part of a support-verb-construction, e.g. 'im Auge BEHALTEN' (3), with BEHALTEN as 'empty' verb with no meaning of its own, or a noun phrase functioning as adjunct, such as 'meines Erachtens' (4).

```
3-G) Selbstverständlich müssen wir die Umweltaspekte ganz sorgfältig im Auge behalten.
3) Needless to say , we must carefully consider the environmental aspects.
4-G) Unseres Erachtens wäre eine solche Steuer schwer anwendbar.
4) We consider that this would be very difficult to apply.
```

There are 14 occurrences where no suitable TE could be identified. These were categorised as 'no translation' and include specimens such as example 5 with a verbless equivalent structure, example 6 where CONSIDER is omitted in the translation or example 7 with the verb SEIN (BE) in the German version.

```
5) First of all let us consider catch quotas.
5-G) Zunächst einmal zu den Fangquoten.
6) ... the labour market is still segregated, women continue to be heavily under-
    represented in positions of responsibility and, above all, there is a pay gap which is
    frankly scandalous considering that this is Europe in the third millennium.
6-G) ... der Arbeitsmarkt ist immer noch gespalten; die Frauen sind in den Führungs-
    positionen nach wie vor deutlich unterrepräsentiert, und vor allem sind die Gehalts-
    unterschiede zwischen Männern und Frauen im Europa des 3. Jahrtausends offen gesagt
    skandalös.
7) Our friends in Eastern and Central Europe have complained that they do not consider our
    Ministerial meetings to be sufficiently well structured.
7-G) Unsere Freunde in Ost- und Mitteleuropa haben sich darüber beklagt , daß unsere
    Ministerkonferenzen nicht ausreichend strukturiert seien.
```

The German verb SEIN (BE), despite occurring five times in the 200 analysed concordance lines, was not categorised as a TE as it was felt that it represents more a non-translation of CONSIDER. SEIN is always used in the subjunctive (Konjunktiv) in the translations, as in example 7-G, indicating uncertainty because the reported statement reflects 'second hand
information' (Krosch 2006: 35). In contrast the indicative, expressing certainty, would be as shown in the transformation 7'-G.

7'-G) Unsere Freunde in Ost- und Mitteleuropa haben sich darüber beklagt, daß unsere Ministerkonferenzen nicht
ausreichend strukturiert sind.

The subjunctive could be seen as a translation of CONSIDER. However, as the translation could have been done with one of the TEs which more directly express the meaning of CONSIDER (see 7"-G), it was decided to categorise these occurrences as 'no translation' and exclude them from the further analysis.

7"-G) Unsere Freunde in Ost- und Mitteleuropa haben sich darüber beklagt, daß sie unsere Ministerkonferenzen nicht für ausreichend strukturiert halten.

Table 7.2 also shows the results of a 'mechanical' or 'automated' search for the TEs in the column 'EuroParl-Search', which confirms the frequencies of the TEs found in the analysis of 200 concordance lines. However, the results of the mechanical search have to be taken with care. Since the English and the German corpora are aligned on sentence level, it is unavoidable that 'mishits' and double-counts occur in a mechanical search and the real numbers of the TEs will be lower. This is already indicated in the fact that in EuroParl the verb CONSIDER appears 14,241 times, yet the mechanical extraction of the 68 TEs adds up to 15,352 . The programme ParaConc will look at sentence level whether the requested TEs occur in German and it is not able to distinguish between a search term and a TE. For example, conducting a mechanical search for CONSIDER and its TE HALTEN will result in examples 8 to 10 (search terms are in square brackets).

```
8) ... , and there are certain influential members of the larger groups who see these
    debates as unnecessary and [[consider]] our resolutions to be somewhat superfluous.
8-G) ... , und einige Mitglieder der großen Fraktionen [[halten]] diese Praxis für sinnlos und
    betrachten unsere Entschließungen als ziemlich überflüssig.
9) As far as I am concerned, deliberate, [[considered]] action makes far more sense than
    rushing into the fray.
9-G) Bedächtige und überlegte Schritte [[halte]] ich jedenfalls für sinnvoller als mögliche
Eilmärsche in den Konkurs.
```

On inspection it becomes clear that in none of these sentences CONSIDER is translated as HALTEN. In 8, CONSIDER is translated (single underlining) with 'betrachten', in 9 with 'überlegte', and in 10 with 'sich abzeichnen', while HALTEN in 8 relates (double underlining) to 'see', in 9 to 'concerned' and in 10 to 'maintain'. This means that, for example, 'consider' in 8-E will appear in a search for the TE HALTEN, but also in the search for BETRACHTEN, which explains why the TEs in a mechanical search add up to a higher number of occurrences than the verb CONSIDER itself.

Another difficulty of a mechanical search is that some German verbs such as ANSEHEN or NACHDENKEN include particles (Verbzusätze), here the prefixes 'an' and 'nach' respectively, which are separated from the root in the present and past tense to form a sentence bracket (Satzklammer) as in examples 11 and 12. 'Verbzusätze' are seen as being syntactically different to prepositions or adverbs and always modify, i.e. change, the meaning of the root (Homberger 2001: 102).

```
11-G) Früher [[sahen]] vor allem die amerikanischen multinationalen Unternehmen das Fehlen
    einer Europäischen Gesellschaft als einen Mangel an, ..
11) Before, it was mainly the American multinationals that [[considered]] the lack of a
    European Company as a deficiency , ...
12-G) ... , und die Kommission versucht, alles in ihren Kräften Stehende zu tun; so [[denkt]]
    sie sogar über einen Kontrollaktionsplan nach, ...
12) ... , and the Commission is trying its best, even [[considering]] an action plan for
    monitoring, ...
```

The separated versions will not come up in a search for the TE ANSEHEN, but are included in the search for SEHEN. This is another reason why the results of the mechanical search for
the TEs shown in table 7.2 are not accurate. Nevertheless, the results are not as distorted as to not reflect the true frequency tendencies.

| OMC-EO | consider | considered |  | considers | considering | тот. | OMC-ET | consider | considered |  | considers | considering | тот. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | active | passive |  |  |  |  |  | active | passive |  |  |  |
|  |  |  |  |  |  |  | abschaetzen | 1 |  |  |  |  | 1 |
| Anbetracht |  |  |  |  | 2 | 2 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | angesichts |  |  |  |  | 1 | 1 |
| ansehen |  | 2 |  |  |  | 2 | ansehen | 1 | 1 | 1 |  |  | 3 |
| abtun |  |  | 1 |  |  | 1 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | beachten | 1 |  |  |  |  | 1 |
| bedenken | 2 | 1 |  |  | 1 | 4 | bedenken | 2 |  |  |  |  | 2 |
|  |  |  |  |  |  |  | bedenkend |  | 1 |  |  |  | 1 |
| begreifen | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | beruecksichtigen |  | 1 |  |  |  | 1 |
|  |  |  |  |  |  |  | Beruecksichtigung |  |  |  |  | 1 | 1 |
|  |  |  |  |  |  |  | beschaeftigen | 1 |  |  |  |  | 1 |
| betrachten <br> Betracht <br> Betrachtung <br> denken | 4 | 2 | 2 |  |  |  | etrachten | 1 | 2 | 2 |  |  | 5 |
|  | 2 | 2 |  |  |  |  |  | 1 | 2 |  |  |  |  |
|  | 1 |  |  |  | 1 |  | 2 | Betrachtung | 1 | 1 |  |  |  | 2 |
|  | 2 | 1 |  |  |  | 3 | denken |  | 1 |  |  |  | 1 |
|  |  |  |  |  |  |  | erachten |  | 1 |  |  |  | 1 |
|  |  |  |  |  |  |  | erwaegen |  | 1 |  |  | 1 | 2 |
|  |  |  |  |  |  |  | Erwaegung | 1 |  |  |  |  | 1 |
|  |  |  |  |  |  |  | feststellen |  |  |  | 1 |  | 1 |
| finden | 1 | 1 | 1 |  |  | 2 | finden |  | 2 |  |  |  | 2 |
| folgen |  | 1 |  |  |  | 2 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | glauben |  |  |  | 1 |  | 1 |
| gelten |  |  | 3 |  |  | 3 | gelten |  | 2 | 6 |  |  | 8 |
| halten | 1 |  | 1 |  |  | 2 | halten | 5 | 9 | 2 | 1 |  | 17 |
| Idee |  | 1 |  |  |  | 1 |  |  |  |  |  |  |  |
| kennen | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |
| Meinung |  | 2 |  |  |  | 2 |  |  |  |  |  |  |  |
| nachdenken | 1 |  |  |  |  | 1 | nachdenken |  |  |  |  | 1 | 1 |
| Nachdenken (noun) | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | nehmen |  | 1 |  |  |  | 1 |
|  |  |  |  |  |  |  | Rechnung |  | 1 |  |  |  | 1 |
| Ruecksicht | 1 |  |  |  |  | 1 | Ruecksicht | 1 |  |  |  |  | 1 |
|  |  |  |  |  |  |  | schaetzen |  | 1 |  |  |  | 1 |
| Sinn |  | 1 |  |  |  | 1 |  |  |  |  |  |  |  |
| sehen |  | 1 |  |  |  | 1 | sehen |  |  | 1 |  |  | 1 |
| ueberlegen | 1 | 1 |  |  | 3 | 5 | ueberlegen | 1 | 1 | 1 |  |  | 3 |
| ueberpruefen |  |  | 1 |  |  | 1 |  |  |  |  |  |  |  |
| untersuchen | 1 |  |  | 1 |  | 2 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | vergegenwaertigen | 1 |  |  |  |  | 1 |
| versuchen | 1 |  |  |  |  | 1 |  |  |  |  |  |  |  |
| vorkommen |  | 1 |  |  |  | 1 | vorkommen |  | 1 |  |  |  | 1 |
|  |  |  |  |  |  |  | vorschlagen | 1 |  |  |  |  | 1 |
| vorstellen | 2 |  |  |  |  | 2 |  |  |  |  |  |  |  |
| waehnen |  | 1 |  |  |  | 1 |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Wert |  | 1 |  |  |  | 1 |
|  |  |  |  |  |  |  | zutrauen | 1 |  |  |  |  | 1 |
| NO TRANSLATION | 4 | 2 |  |  |  | 6 | NO TRANSLATION | 2 |  | 5 | 1 | 2 | 10 |
|  |  |  |  |  | TOTAL | 65 |  |  |  |  |  | TOTAL | 80 |

Tab. 7.3: Translation equivalents of CONSIDER in the OMC

In the OMC it is not possible to do such mechanical searches, and a manual analysis of the concordance lines is always required to identify the TEs. The results of the 65 lines from OMC-EO (English original) and the 80 lines from OMC-ET (English translated) show the TEs listed in table 7.3.

Again, a wide range of possible TEs is notable in both OMC corpora, the OMC-EO shows 28 possible TEs, and the OMC-ET 34 possible TEs. TEs accepted as viable, i.e. TEs with a frequency higher than 2, in OMC-EO are

| BETRACHTEN | $8 x$ |
| :--- | :--- |
| Betracht, ÜBERLEGEN | $5 x$ each |
| BEDENKEN | $4 x$ |
| DENKEN, GELTEN | $3 x$ each |

The TEs accepted as viable in OMC-ET are
HALTEN 17x
GELTEN 8x
BETRACHTEN 5x
ANSEHEN, Betracht, ÜBERLEGEN 3x each

Whilst in EuroParl it is not possible to see differences in the choice of TEs based on translation direction, this is possible with OMC. It is notable that the German equivalents differ between English as original language (OMC-EO) and English as translated language (OMC-ET). This leads to the assumption that translations and thus TEs are not reversible, or at least not equally used. For example, it seems that the German verb HALTEN ${ }^{21}$ is much more likely to be translated into CONSIDER, than CONSIDER is likely to be translated into HALTEN. The results for a translation of CONSIDER into German are less conclusive, i.e. several TEs are almost equally possible: these are the verbs BETRACHTEN (8x) and ÜBERLEGEN ( $5 x$ ) and the noun 'Betracht' ( $5 x$ ).

The two corpora EuroParl and OMC show 89 different German TEs in total for the English verb CONSIDER. Of these 11 TEs occur in EuroParl and both divisions of the OMC corpus, and a further 16 in EuroParl and at least one division of OMC (listed in table 7.4).

[^21]| OMC-EO | TOT. | OMC-ET | TOT. | EuroParl | TOT. | $\begin{aligned} & \text { OVER } \\ & \text { ALL } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Anbetracht | 2 |  |  | Anbetracht | 1 | 3 |
| ansehen | 2 | ansehen | 3 | ansehen | 8 | 13 |
|  |  | beachten | 1 | beachten | 2 | 3 |
| bedenken | 4 | bedenken | 2 | bedenken | 6 | 12 |
|  |  | beruecksichtigen | 1 | berücksichtigen | 7 | 8 |
|  |  | Beruecksichtigung | 1 | Berücksichtigung | 2 | 3 |
| betrachten | 8 | betrachten | 5 | betrachten | 12 | 25 |
| Betracht | 5 | Betracht | 3 | Betracht | 6 | 14 |
| Betrachtung | 2 | Betrachtung | 2 |  |  | 4 |
| denken | 3 | denken | 1 | denken | 5 | 9 |
|  |  | erachten | 1 | erachten | 4 | 5 |
|  |  | erwaegen | 2 | erwägen | 5 | 7 |
|  |  | Erwaegung | 1 | Erwägung | 2 | 3 |
| finden |  | finden | 2 | finden | 5 | 9 |
| gelten | 3 | gelten | 8 | gelten | 1 | 12 |
| halten | 2 | halten | 17 | halten | 20 | 39 |
| Meinung | 2 |  |  | Meinung | 5 | 7 |
| nachdenken | 1 | nachdenken | 1 | nachdenken | 8 | 10 |
| Nachdenken | 1 |  |  | Nachdenken | 1 | 2 |
|  |  | nehmen | 1 | nehmen | 1 | 2 |
| Ruecksicht | 1 | Ruecksicht | 1 |  |  | 2 |
|  |  | schaetzen | 1 | schätzen | 1 | 2 |
| sehen |  | sehen | 1 | sehen | 2 | 4 |
| ueberlegen | 5 | ueberlegen | 3 | überlegen | 3 | 11 |
| ueberpruefen untersuchen vorkommen | 1 |  |  | überprüfen | 1 | 2 |
|  | 2 |  |  | untersuchen | 1 | 3 |
|  | 1 | vorkommen | 1 |  |  | 2 |
|  |  | Wert |  | Wert | 1 | 2 |

Tab. 7.4: Comparison of TEs in EuroParl and OMC

The 11 TEs which are in all three corpora (highlighted in red) could be seen as the key translation equivalents for CONSIDER. These are in order of frequency:

- HALTEN (39x)
- BETRACHTEN (25x)
- Betracht ( 14 x )
- ANSEHEN (13x)
- BEDENKEN (12x)
- GELTEN (12x)
- NACHDENKEN (10x)
- ÜBERLEGEN (11)
- DENKEN (9x)
- FINDEN (9x)
- SEHEN (4x)

It has to be noted that frequency is not the decisive point as it is partly flawed by the higher number of occurrences of CONSIDER in EuroParl. The important point is that because these TEs occur in all three corpora they seem to represent the core translations in German for CONSIDER, and are genre independent.

Three TEs, the nouns 'Betrachtung' and 'Rücksicht' and the verb 'VORKOMMEN', occur only in the two sections of the OMC. These could be seen as being genre specific. This is supported by a search in EuroParl, where as TEs of CONSIDER 'Betrachtung' occurs 20x in total (13), 'Rücksicht' 9x (14) and VORKOMMEN only once (15).

```
13) When considering Moldova's problems we have to remember that ...
13-G) Bei der Betrachtung der Probleme in Moldawien dürfen wir nicht vergessen, dass ...
14) The Agriculture Committee has only considered the tobacco growers, ...
14-G) Der Ausschuß für Landwirtschaft hat nur Rücksicht auf die Tabakanbauer genommen, ...
```

15) We will never consider it to be enough.

15-G) Niemals wird es uns weit genug vorkommen.

It should be mentioned that the verb VORKOMMEN is likely to be slightly more frequent, as the particle (Verbzusatz) 'vor' is separated from the root in certain sentence structures, e.g. 'kommt ... vor' or 'kam ... vor'.

The five TEs which occur in the OMC-EO and in EuroParl could indicate that the verb CONSIDER is also the translation source in EuroParl. These TEs are the nouns 'Anbetracht', 'Meinung' and 'Nachdenken' and the verbs ÜBERPRÜFEN and UNTERSUCHEN. While for the nine TEs which occur in the OMC-ET and EuroParl, it could be assumed that CONSIDER is also the translated language in EuroParl. These are the verbs BEACHTEN, BERÜCKSICHTIGEN, ERACHTEN, ERWÄGEN, NEHMEN and SCHÄTZEN, and the nouns 'Berücksichtigung', 'Erwägung' and 'Wert'. All the TEs which occur in only one of the corpora could be described as being genre or at least context specific.

However, it is felt that for such claims regarding translation direction and genre specific TEs further research is necessary. For the purpose of this thesis only the identification of the most frequent TEs is relevant. Furthermore, it has been shown that the findings from the EuroParl corpus for the verb CONSIDER are not specific regarding its TEs and therefore generalisations can be made.

### 7.2.3 Comparison of Bilingual Dictionary Entries and Corpora Findings

Table 7.5 shows the listings of the TEs in the four dictionaries in order of entry (cf. table 7.1, p 223) and the combined corpora findings in order of frequency.

| Collins (2004) | Cambridge Klett (2002) | Cassell's (1978) | Langenscheidt's (1989) | Corpora findings |
| :---: | :---: | :---: | :---: | :---: |
| überlegen; nachdenken über | nachdenken über; überlegen | ansehen; eingehend betrachten; ins Auge fassen | nachdenken über; Betrachtungen anstellen | halten |
| in Erwägung ziehen | betrachten denken an; bedenken; berücksichtigen | überlegen; erwägen; in Erwägung ziehen; nachdenken über | betrachten als; ansehen als; halten für | betrachten |
| in Betracht ziehen | halten für; betrachten als; denken; der Meinung sein | berücksichtigen; <br> in Betracht ziehen; <br> in Anschlag bringen | überlegen; <br> ins Auge fassen; in Erwägung ziehen; erwägen | Betracht |
| denken an |  | Rücksicht nehmen auf; denken an | berücksichtigen; in Beracht ziehen | ansehen |
| denken an; bedenken; berücksichtigen; Rücksicht nehmen auf |  | denken; <br> glauben; meinen; der Meinung sein; finden; halten für; ansehen als | Rücksicht nehmen auf; denken an | bedenken |
| betrachten als; halten für |  | nackdenken: überlegen | achten; respektieren | gelten |
| (eingehend) betrachten |  |  | glauben; meinen; denken; annehmen | überlegen |
|  |  |  | eingehend betrachten; genau untersuchen; entschädigen / belohnen | nachdenken |
|  |  |  | nachdenken; überlegen | finden |
|  |  |  | aufmerksam schauen | denken |
|  |  |  |  | berücksichtigen |
|  |  |  |  | Meinung |

Tab. 7.5: Comparison of bilingual dictionary entries with corpus findings

It can be noted that there is a strong overlap between the TEs found in the corpora and those found in dictionaries. The only exception is the verb GELTEN which only occurs in the corpora as TE, but is not listed in the bilingual dictionaries. However, the order of listing does not correspond with the frequencies of occurrence in the corpora. For example, the most frequent TE HALTEN in the corpora is not the first TE listed in any of the dictionaries. The reason might be that this TE is attributed to the patterns <sub obj nom/adj>, <sub obj nom/adj-as> and <sub obj vb-to-be-nom/adj> (see section 7.4), neither of these represents the most frequent pattern of CONSIDER. This leads to the assumption that the order of TEs given in bilingual dictionaries could be based on complementation pattern frequency. The
most frequent pattern of CONSIDER is <sub obj> (cf. table 6.6, p 212). The TEs given in dictionaries in top position are ÜBERLEGEN and NACHDENKEN. Therefore it could be assumed that these TEs occur with the valency sentence pattern <sub obj> for CONSIDER. However, it is still somewhat disconcerting that the TEs ÜBERLEGEN and NACHDENKEN are not amongst the most frequent TEs in the corpora. One explanation for this could be that the valency pattern <sub obj> has a multitude of TEs, in other words, this pattern does not have preferred TEs. This would in turn suggest that the valency sentence patterns of CONSIDER are not an indication for the choice of a TE.

Since the TEs NACHDENKEN and ÜBERLEGEN are quite prominent in bilingual dictionaries it is worthwhile to have a closer look at them. Table 7.6 shows the valency sentence patterns of CONSIDER for the TEs NACHDENKEN and ÜBERLEGEN based on the analysis of 50

$\left.$|  |  | nach- <br> denken | denken <br> nach |
| :--- | :---: | :---: | :---: |
| CONSIDER |  |  |  |$\quad$| ueber- |
| :--- |
| legen | \right\rvert\,

Tab. 7.6: Valency patterns of CONSIDER for the TEs NACHDENKEN and ÜBERLEGEN concordance lines. Since the particle 'nach' in NACHDENKEN can be separated from the root or stem in certain sentence structures (see example sentence 12, p 229) 50 lines of DENKEN were also analysed, which came up with 6 occurrences belonging to the verb NACHDENKEN. As can be seen, whilst NACHDENKEN is indeed used most frequently (34x) as a TE for CONSIDER in the pattern <sub obj>, this is not the case for ÜBERLEGEN, which is more likely to be used as a TE for CONSIDER in the pattern <sub obj-wh> as in example sentence 16.
16) We considered whether we should conduct a joint mission.

16-G) Wir haben überlegt, ob wir nicht gemeinsam eine Mission durchführen sollten.

|  | CONSIDER | ÜBERLEGEN |
| :---: | :---: | :---: |
| CONSIDER | 14,241 | $\sim 45 \%$ |
| ÜBERLEGEN | $\sim 2 \%$ | 865 |
|  |  |  |

Tab. 7.7: Occurrences of CONSIDER and ÜBERLEGEN in EuroParl

The prominent display of ÜBERLEGEN in bilingual dictionaries could be due to the fact that the German verb ÜBERLEGEN, according to the EuroParl data, is more likely to be translated into CONSIDER than vice versa (table 7.7). This is an indication that TEs are not reversible. Table 7.6 shows that about $2 \%$ of the 14,241 occurrences of CONSIDER have the TE ÜBERLEGEN, while roughly $45 \%$ of the 865 occurrences of ÜBERLEGEN have the TE CONSIDER ${ }^{22}$. The OMC data is much lower (table 7.8) and therefore inconclusive.

There are only 17 occurrences of ÜBERLEGEN in the OMC-EO, English as source language, and three (17.6\%) of these are translations of CONSIDER. Looking at the German originals (English as target language), reveals that ÜBERLEGEN is slightly more frequent with 49

| OMC-EO | UEBERLEGEN (total) | OMC-ET | UEBERLEGEN (total) | OVER. <br> ALL |
| :---: | :---: | :---: | :---: | :---: |
| consider | 3 | consider | 4 | 7 |
| ponder | 2 |  |  | 2 |
| think | 3 | think | 9 | 12 |
| think about | 1 | think about | 3 | 4 |
|  |  | think of | 1 | 1 |
|  |  | think up | 1 | 1 |
|  |  | in thought | 1 | 1 |
|  |  | take thoughts | 1 | 1 |
| wonder | 4 | wonder | 17 | 21 |
| total | 17 |  | 49 | 66 |

Tab. 7.8: Occurrences of CONSIDER and ÜBERLEGEN in the OMC occurrences, of which four ( $8.16 \%$ ) are translated into CONSIDER.

Most importantly the above investigation has shown that there is actually no justification for the high-ranking listing of ÜBERLEGEN in bilingual dictionaries.

Another discrepancy between the entries in bilingual dictionaries and the corpus findings is that the example sentences given in dictionary entries are rarely found in the corpora. For example, the valency patterns <sub obj adj>, <sub obj adj-as> and <sub obj vb-to-be-adj>

[^22]are not only insufficiently covered by the entries 'consider yourself sacked', 'do you consider her trustworthy?' or 'consider oneself lucky' which only represent the pattern <sub obj adj>, but also give the impression that a pronoun in the object position is typical. Whilst the pronoun in object position also occurs in EuroParl, occurrences with an object noun phrase are more frequent, such as examples 17 to 19 .

```
17) ... - which we consider illegal ...
17-G) ... , was wir als illegal ... ansehen.
18) ... , especially among those who consider such a proposal as imperialistic, ...
18-G) ..., vor allem bei denjenigen, die einen solchen Vorschlag als imperialistisch ansehen.
19) I must consider this document to be insufficient.
19-G) Deshalb muss ich dieses Dokument als unzureichend ansehen.
```

über|'І्Іेgen' ptp überlegt insep $\mathbf{V}$ (= nachdenken) to think; überleg doch mal! think!; hin und her ~ to deliberate; ich habe hin und her überlegt I've thought about it a lot; ohne zu ~ without thinking; (= ohne zu zögern) without thinking twice
VI ( $=$ überdenken, durchdenken) to think over or about, to consider; das werde ich mir - I'll think it over, Ill (have a) think about it, I'll give it some thought; ich habe es mir anders überlegt I've changed my mind (about it); ich habe es mir noch mal überlegt I've had second thoughts (about it); wollen Sie es sich (dat) nicht noch einmal $\sim$ ? won't you think it over again?, won't you reconsider'? das muss ich mir noch sehr ~ I'll have to think it over or consider it very carefully; das hätten Sie sich (dat) vorher ~ müssen you should have thought of or about that before or sooner; es wäre $\mathbf{z u}$ ~ it should be considered; wenn man es sich recht überlegt if you really think about it

Fig. 7.1: ÜBERLEGEN in Langenscheidt Collins Großes
Studienwörterbuch Englisch, HarperCollins (2008)

It appears that dictionaries tend to place emphasis on phrases and idioms irrespective of their frequency of use, i.e. the typical use of words. Looking exemplary at a dictionary entry for ÜBERLEGEN (figure 7.1) it seems as if the German phrases are chosen because of the distinct phraseology of the English translation. For example, entries include 'I've changed my mind' and 'I've had second thoughts about it', which are more distinctive than the German equivalents of 'ich habe es mir anders überlegt' and 'ich habe es mir noch mal überlegt' respectively, which in themselves do not justify an entry. There are many phrases with very little syntactic information. Interestingly, most of the given English example translations occur neither in EuroParl nor in the OMC, which supports the assumption that the dictionary entries are not based on actual language use.

| ÚBERLEGEN | TOTAL |
| :--- | :---: |
| 200 concordance lines |  |
| CONSIDER | $\mathbf{8 9}$ |
| RE-CONSIDER | $\mathbf{1}$ |
| DECIDE | $\mathbf{3}$ |
| GIVE consideration | $\mathbf{4}$ |
| GIVE thought | $\mathbf{8}$ |
| LOOK at | $\mathbf{5}$ |
| REFLECT | $\mathbf{5}$ |
| SEE | $\mathbf{5}$ |
| superior | $\mathbf{3}$ |
| THINK | $\mathbf{2 1}$ |
| RETHINK | $\mathbf{3}$ |
| WONDER | $\mathbf{6}$ |
| no translation | $\mathbf{1 4}$ |

Also supporting the above assumption is an analysis of 200 randomly chosen concordance lines for ÜBERLEGEN from EuroParl (table 7.9). The most frequent TEs, CONSIDER and THINK, also occur in the dictionary entry (figure 7.1) But, based on the findings from EuroParl, other TEs for ÜBERLEGEN which would deserve mentioning in bilingual dictionaries are 'GIVE sth consideration/thought', WONDER, LOOK AT, REFLECT and SEE.

Tab. 7.9: TEs of ÜBERLEGEN for 200 concordance lines from EuroParl

Most perturbing, in my opinion, is the fact that the most frequent valency pattern of ÜBERLEGEN <sub obj-wh> is not amongst the dictionary entries. For reference, 100 concordance lines from the monolingual German DeReKo corpus were randomly chosen; in 46 of these ÜBERLEGEN was used as an adjective, which left 54 lines were ÜBERLEGEN was used as a verb. Out of these 22 lines ( $41 \%$ ), i.e. the largest group, showed the pattern <sub obj-wh> as in examples 20 and 21.
20) Überlegen wir uns also, wie wir mehr aus unserem Leben machen können,...
21) Wir überlegen auch, ob wir den Betrieb nicht selbst weiterführen.

The valency sentence pattern <sub obj-wh> is also the most frequent pattern of 200 randomly chosen concordance lines for ÜBERLEGEN in EuroParl with 62\% of all occurrences.

Based on the investigation so far, it seems that TEs provided in bilingual dictionaries appear somewhat arbitrary since they do not seem to be based on real language use, i.e. corpus investigation. The inspected bilingual dictionaries indicated that the TEs NACHDENKEN and ÜBERLEGEN are near-synonymous verbs, but did not point out their different preferred
syntactic environments. While NACHDENKEN occurs most frequently with the valency sentence patterns <sub obj>, ÜBERLEGEN is more frequent with the pattern <sub obj-wh>. Considering the preferences of verbs for certain valency sentence patterns, as previously presented in this research, it seems curious that, given the evidence of usage, this information is not provided in bilingual dictionaries as part of the knowledge of a word. Furthermore, bilingual dictionaries do not list TEs representing adjuncts such as 'meines Erachtens', but list support-verb-constructions such as 'in Betracht ZIEHEN'. In my opinion, bilingual dictionaries ought to give guidance on the use of TEs and point out syntactic differences between source and target language (for a discussion of a specimen bilingual dictionary entry see chapter $8, \mathrm{p} 274$ ).

### 7.3 Comparison of TEs for CONSIDER, BELIEVE, FEEL AND THINK

This section will first look at the variation ratios of the verbs CONSIDER, BELIEVE, FEEL and THINK. The variation ratio provides a suitable tool to compare verbs with regard to their possible meaning interpretations in another language. The closer the variation ratio gets to 1 , the more TEs a word has, the closer it gets to 0 the less. In a second step the shared TEs of the four verbs will be investigated. Since the four verbs have near-synonymous uses in monolingual use, it is assumed that they will also share some TEs.

The variation ratio is calculated by dividing the number of identified TEs of a word by the total number of occurrences, or the number of concordance lines analysed. As can be seen in table 7.10 the variation ratio of CONSIDER is highest in all three corpora with $0.34(68 / 200)$ for EuroParl, $0.43(28 / 65)$ for OMC-EO and $0.42(33 / 80)$ for OMC-ET, compared to the other verbs.

|  | Total <br> EuroParl | TEs <br> (200 <br> lines) | Ratio | Total OMC-EO | $\begin{aligned} & \hline \text { TEs } \\ & \text { (100 } \\ & \text { lines*) } \end{aligned}$ | Ratio | Total OMC-ET | $\begin{aligned} & \hline \text { TEs } \\ & \text { (100 } \\ & \text { lines*) } \end{aligned}$ | Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CONSIDER | 14,241 | 68 | 0.34 | 78 | 28 | 0.42 | 81 | 33 | 0.41 |
| THINK | 29,282 | 35 | 0.18 | 932 | 20 | 0.20 | 494 | 20 | 0.20 |
| BELIEVE | 25,831 | 30 | 0.15 | 165 | 15 | 0.15 | 152 | 11 | 0.11 |
| FEEL | 9,164 | 44 | 0.22 | 530 | 16 | 0.16 | 344 | 16 | 0.16 |

Tab. 7.10: Variation ratio of TEs for CONSIDER, THINK, BELIEVE and FEEL in three corpora

* The verb CONSIDER has less than 100 occurrences in total

The verbs THINK and BELIEVE have considerably fewer German TEs than CONSIDER, with 35 and 30 TEs respectively in the 200 analysed concordance lines from EuroParl (the analysis of the TEs can be found on the attached CD-Rom in appendix V, p 344). This trend is replicated in OMC-EO and OMC-ET. Therefore, the variation ratios for THINK and BELIEVE are lower in all three corpora by roughly the same proportions: in general CONSIDER has at least twice as many TEs as THINK and BELIEVE. Thus indicating that the senses or meanings of CONSIDER are more varied in German than the senses of THINK and BELIEVE.

THINK and BELIEVE, as expected (Leech et. al. 2001), are notably more frequent in each of the corpora than the verb CONSIDER. Yet, CONSIDER has the highest number of TEs. This seems to contradict the general assumption that high frequency words tend to be highly contextualized, i.e. the more frequent a word is, the more meanings it will have (de Cock and Granger 2004: 233). The statement may be valid for monolingual investigations, but needs to be revised for contrastive studies.

Similarly, a possible correlation between the overall number of complementation patterns (section 6.4, p 207) and the number of possible TEs cannot be established. This is not to say that the syntactic complementation of a verb is not a determining factor for the choice of a TE. In monolingual English language investigation, it is generally acknowledged that lexical
meaning and the local grammar of words are, at least partly, interrelated. For example, Francis et al. $(1996,1998)$ claim that there is a link between word patterns and meaning. Words can be grouped into 'meaning groups' based on their complementation patterns. Thus, the meaning groups distinguish themselves from each other through complementation patterns. This interrelationship between meaning, i.e. the TE, and structure could also be true for bilingual studies. And although translation differences are not seen as useful for meaning identification in monolingual studies (Moon 1987: 99), a study such as the present can contribute to the understanding of the possible links between meaning and the local grammar of words in mono- as well as bilingual investigations (cf. section 7.4).

Returning to table 7.10, it is notable that the verb FEEL has more TEs in EuroParl than in the other two corpora, with a variation ratio of 0.22 in EuroParl, and 0.16 in the OMC corpus. At first glance it appears as if FEEL is used in a different way in EuroParl, i.e. there are genre specific differences between EuroParl and OMC. A comparison of the TEs (table 7.10) indeed shows that the meaning of FEEL in EuroParl is more likely to express a cognitive activity with TEs such as HALTEN (example sentence 22) and ANSEHEN, whereas in the OMC corpus it refers mainly to a sensation of FÜHLEN (example sentence 23) and SPÜREN (example sentence 24).

```
22) We feel that they were perfectly justified ...
22-G) Wir halten sie für voll und ganz gerechtfertigt ...
23 OMC-0) I cannot say I feel anything at all
23-G OMC-O) Eigentlich fühle ich überhaupt nichts
24 OMC-O) Martin felt a draught ...
24-G OMC-O) Martin spürte einen Luftzug, ...
```

Table 7.11 shows the most frequent TEs for each of the verbs under investigation in each of the corpora (the two highest occurrences and frequencies over 10 are highlighted in grey).

|  | EuroParl |  |  |  | OMC-EO |  |  |  | OMC-ET |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CONSIDER | THINK | BELIEVE | FEEL | CONSIDER | THINK | BELIEVE | FEEL | CONSIDER | THINK | BELIEVE | FEEL |
|  | 200 concordance lines |  |  |  | 100 concordance lines* |  |  |  | 100 concordance lines* |  |  |  |
| ANSICHT | 5 | 12 | 11 | 1 |  |  | 1 |  |  |  |  |  |
| ANSEHEN | 8 |  |  | 17 | 2 | 1 |  |  | 3 |  |  |  |
| AUFFASSUNG | 4 | 3 | 8 | 5 |  |  |  |  |  |  |  |  |
| BETRACHT | 6 |  |  |  | 5 |  |  |  | 3 |  |  |  |
| BETRACHTEN | 12 | 2 | 1 | 3 | 8 |  |  |  | 5 | 1 |  |  |
| DENKEN | 5 | 38 | 13 | 4 | 3 | 35 | 3 |  | 1 | 55 | 3 | 1 |
| ERACHTENS | 7 | 9 | 16 | 14 |  |  |  |  |  |  |  |  |
| FINDEN | 5 | 4 | 4 | 2 | 2 | 2 |  |  | 2 | 6 | 2 | 1 |
| FUEHLEN |  |  |  | 21 |  |  |  | 23 |  |  |  | 28 |
| GELTEN | 1 |  |  |  | 3 | 1 |  |  | 8 |  |  |  |
| GLAUBEN |  | 31 | 59 | 10 |  | 24 | 74 | 1 | 1 | 9 | 79 | 2 |
| HALTEN | 20 | 21 | 17 | 24 | 2 | 2 | 1 |  | 17 | 6 | 1 |  |
| MEINEN | 1 | 8 | 8 | 8 |  | 6 | 1 | 2 |  |  | 2 |  |
| MEINUNG | 5 | 23 | 24 | 11 | 2 |  | 2 | 2 |  | 1 | 2 |  |
| SPUEREN |  |  |  |  |  |  |  | 13 |  |  |  | 12 |
| UEBERLEGEN | 3 |  |  |  | 5 | 1 |  |  | 3 | 1 |  |  |

Tab. 7.11: Key TEs for CONSIDER, THINK, BELIEVE and FEEL in three corpora

* The verb CONSIDER has less than 100 occurrences in total

The words highlighted in red in the left hand column are TEs which occur with all four verbs in EuroParl. This means these verbs share the same German counterparts, although with varying frequencies. For example, the TE MEINEN seems to be a suitable translation for CONSIDER, THINK, BELIEVE and FEEL, yet, it does not occur as a frequent TE for any of the verbs, whereas the TE HALTEN is amongst the most frequent TEs for all four verbs.

From a linguistic point of view it would be interesting to know whether these shared TEs occur with the same valency complementation pattern of their English counterparts CONSIDER, THINK, BELIEVE and FEEL. Moreover, will a unique TE such as the noun 'Betracht' for CONSIDER yield a unique syntactic structure? These questions will be investigated in the following sections 7.4 and 7.5 , which look at the possible relationship between the valency complementation patterns and the TEs.

### 7.4 Valency Sentence Patterns of CONSIDER and TEs of CONSIDER

The previous section has shown that there is a wide variety of possible TEs available for a given word. In this section it will be investigated whether valency sentence patterns could be

| CONSIDER | $\begin{aligned} & \text { HALTEN } \\ & \text { FÜR } \\ & \text { (Total) } \end{aligned}$ | $\begin{aligned} & \text { BETRACH- } \\ & \text { TEN } \\ & \text { (Total) } \end{aligned}$ | PRUEFEN | $\begin{aligned} & \text { Ansicht } \\ & \text { FVG } \end{aligned}$ | $\begin{aligned} & \text { Ansicht } \\ & \text { nict } \end{aligned}$ | Meinung FVG | Meinung ADJCT | BERUECKSICHTIGEN | $\begin{aligned} & \text { Auf- } \\ & \text { fassung } \\ & \text { FVG } \end{aligned}$ | Auffassung ADJCT | $\begin{aligned} & \text { NACH- } \\ & \text { DENKEN } \end{aligned}$ | $\begin{aligned} & \text { DENKEN } \\ & \text { nach } \end{aligned}$ | denken | DENKEN <br> an | SEHEN | SEHEN in | SEHEN an |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1,730 | 1,007 | 774 | 738 |  | 629 |  | 593 | 586 |  | 475 | 430 |  |  | 423 |  |  |
| sub obj |  | 15\% | 62\% |  |  |  |  | 78\% |  |  | 58\% | 10\% | 2\% | 44\% | 18\% | 4\% |  |
| sub obj-that | 13\% | 4\% |  | 70\% | 12\% | 56\% | 18\% | 12\% | 60\% | 24\% |  |  | 10\% | 2\% | 10\% |  | 2\% |
| sub obj-wh |  | 1\% | 34\% |  |  |  |  | 4\% |  |  | 28\% | 2\% |  | 2\% | 8\% |  |  |
| sub obj-ing |  |  | 4\% |  |  |  |  | 2\% |  |  | 8\% |  |  | 14\% |  |  |  |
| sub obj nom | 2\% | 13\% |  |  |  |  |  |  |  |  |  |  | 2\% |  |  | 2\% |  |
| sub obj adj | 14\% | 12\% |  |  | 2\% |  | 4\% |  | 2\% |  |  |  | 2\% | 2\% | 8\% |  | 6\% |
| sub obj nom-as | 1\% | 18\% |  |  |  |  |  | 2\% |  |  |  |  |  |  | 8\% | 2\% |  |
| sub obj adj-as | 2\% | 2\% |  |  |  |  |  |  |  |  |  |  | 2\% |  |  |  |  |
| sub obj vb-to-be-nom | 10\% | 21\% |  |  | 2\% | 2\% | 12\% |  | 2\% | 4\% |  |  | 2\% |  | 8\% | 10\% | 4\% |
| sub obj vb-to-be-adj | 25\% | 10\% |  | 4\% | 6\% |  | 6\% | 2\% | 2\% | 2\% |  |  | 2\% |  | 2\% |  | 4\% |
| sub obj vb-to-inf | 1\% | 1\% |  |  |  |  |  |  |  | 2\% | 6\% |  |  |  |  |  |  |
| sub it nom vb-that | 2\% | 2\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| sub it adj vb-that | 13\% | 2\% |  |  | 2\% |  |  |  |  |  |  |  | 2\% |  |  |  | 2\% |
| sub it nom vb-to-inf | 1\% | 1\% |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| sub it adj vb-to-inf | 20\% | 2\% |  | 2\% |  | 2\% |  |  |  | 2\% |  |  |  |  |  |  | 2\% |
| total | 100\% | 100\% | 100\% | 76\% | 24\% | 60\% | 40\% | 100\% | 66\% | 34\% | 100\% | 12\% | 24\% | 64\% | 62\% | 18\% | 20\% |

Tab. 7.12: The valency sentence patterns of CONSIDER and TEs of CONSIDER

analysed for their TEs. If a TE occurs frequently with a certain valency sentence pattern of CONSIDER, it can be hypothesised that valency sentence patterns are an indicator for a chosen TE. Furthermore, the valency sentence patterns of preferred TEs will be compared to those of CONSIDER in order to investigate whether the preferred TEs show similar or different patterns than the English sentence.

Table 7.12 shows the valency sentence patterns of CONSIDER and the most frequent TEs of CONSIDER. The TEs are still shown as single words. However, the nouns are already divided to show whether they represent a support-verb-construction or an adjunct. For example, the noun 'Ansicht' can occur in the following translations:

```
25) As the Committee on Budgets we consider that the establishment of the budget by
    activities causes us problems.
25-G) Als Haushaltsausschuss sind wir der Ansicht, dass uns die Aufstellung des
    Haushaltsplans nach Tätigkeiten Probleme bereitet .
26) We consider that this new rule does not guarantee the necessary balance.
26-G) Diese neue Regelung garantiert unserer Ansicht nach nicht die erforderliche
    Ausgewogenheit.
```

In 25-G 'Ansicht' is part of a verb-noun-structure with the verb SEIN ${ }^{23}$, the TE is 'der Ansicht SEIN', while in 26-G 'Ansicht' is part of the phrase 'PRONOUN Ansicht nach' which represents an adjunct, functioning as a hedging device that can be added to almost any sentence.

The TEs DENKEN and SEHEN include occurrences of NACHDENKEN (DENKEN nach) and ANSEHEN (SEHEN an) respectively. Additionally, prepositional complements with 'an' (DENKEN an) and 'in' (SEHEN in) were distinguished as it was felt that the prepositions change the meaning of the verbs.

[^23]The TEs are shown in order of frequency as a TE of CONSIDER based on a mechanical search in EuroParl, (second row table 7.12). The occurrence of a TE for a valency sentence pattern of CONSIDER is given in percentages (the same table with absolute numbers can be found on the attached CD-Rom in appendix V, p 344). The percentages are based on 50 randomly chosen concordance lines from the EuroParl corpus for the respective TEs with the exception of HALTEN and BETRACHTEN, for which 200 lines were analysed.

In order to identify whether the TEs show preferences for certain valency sentence patterns of CONSIDER, the patterns are colour coded in table 7.11. Occurrences of $10 \%$ and higher of a TE with a valency sentence pattern of CONSIDER are highlighted in the respective colour of the pattern. As can be seen, the TEs seem to cluster around certain valency patterns of CONSIDER, indicating a congruence between local grammar and the TEs, i.e. the meaning. Therefore it can be deduced from table 7.11 that the TEs are not equally suitable for all the valency sentence patterns the verb CONSIDER can occur with. Rather it seems to be the case that the TEs are dependent on the valency sentence pattern of CONSIDER. Many TEs show a clear preference for one of the valency sentence patterns of CONSIDER (occurrences of $50 \%$ and higher are in bold). On the other hand, there are also TEs, for example the two most frequent TEs HALTEN and BETRACHTEN, which spread less distinctivly over several valency sentence patterns of CONSIDER.

The preferred TEs for each of the patterns of CONSIDER are summarised in table 7.13. The TEs are listed in order of their preference for the pattern. For example, 78\% (39 occurrences) of the 50 concordance lines for the TE BERÜCKSICHTIGEN occurred with the valency sentence pattern <sub obj> as shown in example sentence 27.

[^24]| Valency sentence pattern <br> of CONSIDER | Preferred TEs |
| :--- | :--- |
| <sub obj> | BERÜCKSICHTIGEN, Betracht (in Betracht ZIEHEN), ERWÄGEN, <br> PRÜFEN, Auge (ins Auge FASSEN), NACHDENKEN, Erwägung (in <br> Erwägung ZIEHEN), DENKEN an, BEDENKEN, ÜBERLEGEN, <br> SEHEN, BETRACHTEN, DENKEN nach |
| <sub obj-that> | Ansicht (der Ansicht SEIN), MEINEN, Auffassung (der Auffassung <br> SEIN), BEDENKEN, GLAUBEN, Meinung (der Meinung SEIN) and the <br> adjunct Erachtens (PRONOUN Erachtens) |
| <sub obj-wh> | ÜBERLEGEN, PRÜFEN, NACHDENKEN |
| <sub obj-ing> | Erwägung (in Erwägung ZIEHEN), ERWÄGEN, Betracht (in Betracht <br> ZIEHEN) |
| <sub obj nom / adj> | ERACHTEN, GELTEN, ANSEHEN, FINDEN, BETRACHTEN, <br> HALTEN |
| <sub obj nom-/adj-as> | BETRACHTEN, GELTEN |
| <sub obj vb> | GELTEN, HALTEN, BETRACHTEN, FINDEN, ANSEHEN, |

Tab. 7.13: Valency sentence patterns of CONSIDER and their preferred TEs

The TE 'Betracht', mainly in the support-verb-construction 'in Betracht ZIEHEN', occurs in $74 \%$ (37 occurrences) of the analysed concordance lines with this sentence pattern of CONSIDER, as shown in example 28.

```
28) We should at least consider policy changes.
28-G) Wir sollten einen Richtungswechsel zumindest in Betracht ziehen.
    (Wir ziehen einen Richtungswechsel in Betracht.)
```

The most frequent pattern <sub obj> occurs with the widest variety of TEs and can either be expressed with a verb (27) or a support-verb-construction (28) in German.

The pattern <sub obj-that> occurs mainly with a support-verb-construction in German (Ansicht, Auffassung, Meinung) as in example sentence 29 or with the verbs MEINEN, BEDENKEN and GLAUBEN as in example sentence 30.

```
29) We consider that these have a highly diverse content.
29-G) Wir sind der Ansicht, dass diese inhaltlich sehr vielseitig sind.
30) We consider that international law must be respected.
30-G) Wir meinen, dass das Völkerrecht respektiert werden muss.
```

As can be seen in the example sentences 29 and 30, these TEs of CONSIDER with the valency sentence pattern <sub obj-that> occur with the equivalent valency sentence pattern <sub obj-dass> in German.

The TEs for CONSIDER followed by a wh-clause in object position also occur frequently with a w-clause in German, as in examples 31 and 32.

```
31) We must consider how we are to react to this situation.
31-G) Wir werden uns überlegen müssen, wie wir darauf reagieren.
32) We will consider whether this could lead to a system for early detection of forest
    fires.
32-G) Wir werden prüfen, ob sich das zu einer Art Frühwarnsystem für Waldbrände ausbauen
    lässt.
```

For the valency sentence pattern <sub obj-ing> the nouns 'Erwägung' and 'Betracht' in the support-verb-constructions 'in Erwägung ZIEHEN' or 'in Betracht ZIEHEN' and the verb ERWÄGEN are frequent TEs, as in examples 33 and 34 .

```
33) I think you are considering introducing a safeguard clause.
33-G) Sie ziehen die Einführung einer Schutzklausel in Betracht.
34) The Commission will consider setting up a monitoring unit.
34-G) Die Kommission erwägt die Einrichtung einer Forschungsstelle.
```

As there is no direct syntactic equivalent in German to the ing-form in object position, this is generally translated as a noun phrase. Therefore it is not surprising that, as seen in table 7.12 ( p 243 ), the TEs for CONSIDER in the valency patterns <sub obj> and <sub obj-ing> are shared.

The valency sentence patterns <sub obj nom> and <sub obj adj> of CONSIDER occur frequently with the TEs ERACHTEN, GELTEN, ANSEHEN, FINDEN, BETRACHTEN and HALTEN. FINDEN is the only TE that can occur with the same valency structure as CONSIDER (35), i.e. FINDEN with the meaning of 'having an opinion' can be directly
followed by a nominal or adjectival complement (Helbig 1992: 15). The TEs GELTEN, ANSEHEN and BETRACHTEN need the particle 'als' to realise the nominal or adjectival complement (36). ERACHTEN occurs either with the particle 'als' or the preposition 'für' before the nominal or adjectival complement. Both options are exchangeable ${ }^{24}(37,38)$. HALTEN, as a translation of CONSIDER, is always followed by a prepositional complement with 'für' (39).

```
35) We considered this insufficient and ...
35-G) Wir fanden dies nicht ausreichend und..
36) ... which the Court considers too time-consuming and ...
        (The Court considers this too time-consuming.)
36-G) ... , die der Rechnungshof als zu kompliziert ansieht und ...
        (Der Rechnungshof sieht dies als zu kompliziert an.)
37) We consider the amendments very positive.
37-G) Wir erachten die Änderungsanträge als sehr positiv.
38) It is up to each Member State to take the measures it considers appropriate ...
        (The Member States consider the measures appropriate.)
38-G) Es ist die Sache jedes Mitgliedstaats, die Massnahmen zu ergreifen, die er für
        geeignet erachtet ...
        (Die Mitgliedstaaten erachten die Massnahmen für geeignet.)
39) ... allow each of the parties to take measures that it considers essential ...
        (The parties consider the measures essential.)
39-G) ... jedem Vertragspartner gestatten, die Maßnahmen zu ergreifen, die dieser für notwenig
    hält.
    (Die Vertragspartner halten die Massnahmen für notwendig.)
```

The preferred TEs for the valency sentence patterns <sub obj nom-as> and <sub obj adj-as> are BETRACHTEN and GELTEN. Both take the particle 'als', which is equivalent to the English 'as', as shown in examples 40 and 41.
40) Should we not consider the OECD agreement as null and void if ... ? (We consider the agreement as null and void.)

40-G) Sollte nicht das OECD-Abkommen als ungültig betrachtet werden, wenn ... ? (Wir betrachten das Abkommen als ungültig.)

[^25]```
41) The establishment of pension systems used to be considered as a step towards a
    civilised society.
    (We considered the establishment of pension systems as a step towards a civilised society.)
41-G) Die Einrichtung von Rentensystemen galt früher als Fortschritt auf dem Weg zu einer
    zivilisierten Gesellschaft.
```

There is a structural difference between CONSIDER and the TE GELTEN which ought to be pointed out. The German verb GELTEN does not take the experiencer or thinker in subject position (E-VALBU). It is therefore generally used as a TE when the English verb occurs in a passive clause. Realisation of the person thinking requires a dative or a prepositional complement with 'für' for the verb GELTEN, as shown in the transformation of 41 into 41'.

[^26]Based on the assumption that the valency sentence patterns <sub obj nom> and <sub obj adj> can be extended, without a change in meaning, with an infinitive clause to form the valency sentence patterns <sub obj vb-to-be-nom> and <sub obj vb-to-be-adj> it is probably not surprising that the TEs for both structures are the same (42, 43). For German verbs extension with an infinitive clause is not possible, the German sentence structure will therefore show no difference in the translation between the extended and not-extended valency sentence patterns of CONSIDER with a nominal or adjectival complement.

```
42) All Member States consider microchipping to be a reliable method of identification ...
42-G) In allen Mitgliedstaaten gilt die Verwendung von Mikrochips als zuverlässige Methode
    der Identifizierung ...
43) The Committee considers these areas to be important.
43-G) Der Ausschuss hält diese Bereiche für wichtig.
```

Occasionally, TEs that take a dass-clause are also found for valency sentence patterns with a nominal or adjectival complement in English as demonstrated in examples 44 and 45.

```
4) The Commission considers, therefore, these amendments unnecessary.
44-G) Die Kommission ist daher der Auffassung, dass diese Änderungsanträge überflüssig sind.
```

```
45) I consider current agricultural support to be wasteful and ...
45-G) Ich bin der Ansicht, dass die jetztige Unterstützung der Landwirtschaft
    verschwenderisch ist, und ...
```

This may not be too surprising, considering that nominal and adjectival complements can also be expressed with a that-clause in English as shown in the rewritten examples 44' and 45'.

44') The Commission considers, therefore, that these amendments are unnecessary.
$45^{\prime}$ ) I consider that the current agricultural support is wasteful and ...

The most frequent TEs that occur with a correlate 'it' in the valency sentence pattern of CONSIDER are HALTEN, ERACHTEN and FINDEN which occur with the equivalent correlate 'es' in German. As can be seen in example sentences 46 and 47 , there is no difference in the valency sentence pattern of CONSIDER and the valency sentence pattern of the TE.

```
46) I consider it crucial that we have a true internal market.
46-G) Ich halte es für äusserst wichtig, dass wir über einen echten Binnenmarkt verfügen.
47) The vast majority of Member States did not consider it necessary to amend the article.
47-G) Die Mehrzahl der Mitgliedstaaten erachtete es nicht als notwendig, den Artikel zu
    ändern
```

Based on the analysis so far, it appears that the preferred TEs of a valency sentence pattern of CONSIDER are attributable to a syntactic affinity between the patterns of CONSIDER and the patterns of the respective TEs.

However, this is only partly true, and table 7.12 ( p 243 ) needs to be read with care. For example, the table shows that the valency sentence pattern <sub obj-that> occurs in $60 \%$ of analysed examples for the TE BEDENKEN, but only in $13 \%$ of the sentences analysed for the TE HALTEN. In order to come to the correct conclusion, the total numbers of the TEs for CONSIDER need to be taken into account. Extrapolating the percentages with the total occurrences shows that in EuroParl HALTEN will probably occur 224 times ( $13 \%$ of 1,730)
as a TE of CONSIDER with the valency sentence pattern <sub obj-that>, but BEDENKEN will only be used 174 times ( $60 \%$ of 291) as a TE for this pattern of CONSIDER. This means that a translation with HALTEN is more likely than a translation with BEDENKEN. Furthermore, it means that the English and the German valency sentence patterns will vary as demonstrated in example 48, i.e. the likelihood of syntactic affinity between the patterns of CONSIDER and those of its respective TEs is not as strong as originally assumed.

```
48) We consider that Amendment No 20 is superfluous. <sub obj-that>
48-G) Wir halten Änderungsantrag 20 für überflüssig. <sub obj prp-für>
```

In addition, to a speaker of German, replacement with BEDENKEN would probably sound strange or even be classified as a wrong translation (48'-G), although it has the same valency sentence pattern.

48'-G) Wir bedenken, dass Änderungsantrag 20 überflüssig ist. <sub obj-dass>

On the other hand, replacement with a support-verb-construction, as in 48 "-G, would be totally acceptable.

Suitability for replacement concerns the question of synonymy. It is generally accepted that accredited semantic similarity of certain words does not necessarily include an unrestricted exchangeability of these (Lyons 1981: 50-51; Bußmann 1983: 525-526). In section 7.5 a closer look at the valency sentence patterns and other usage aspects of some TEs will be undertaken. For example, it will be shown that the TE BEDENKEN typically occurs in German in a conditional clause or with a modal verb.

But first, it is worthwhile to investigate whether the shared TEs between CONSIDER, BELIEVE, FEEL and THINK show a similar valency sentence pattern distribution as they show for the verb CONSIDER.

### 7.4.1 Valency Sentence Patterns of CONSIDER, BELIEVE, FEEL and THINK and their ‘shared' TEs

The TEs chosen for this investigation are the most frequent ones for each of the English verbs, these are HALTEN for the verb CONSIDER, GLAUBEN for the verb BELIEVE, FÜHLEN for FEEL, and DENKEN for the verb THINK. Furthermore, the two TEs FINDEN and ÜBERLEGEN were included. FINDEN is included as it is the only German TE which can take a that-clause and an adjectival or nominal complement, and ÜBERLEGEN is included because of its prominence in dictionaries. Table 7.14 shows the comparison for the chosen TEs and their English counterpart based on 50 randomly chosen concordance lines. For easier orientation the TEs are colour-coded.


Tab. 7.14: Valency sentence patterns of CONSIDER, BELIEVE, FEEL and THINK and the TEs HALTEN, DENKEN, GLAUBEN, FÜHLEN, FINDEN and ÜBERLEGEN

It is probably not too surprising that most of the TEs investigated occur most frequently with the dominant valency pattern <sub obj-that> (cf. section 6.5, p 211) of BELIEVE, FEEL and THINK. This means that the TEs do not show a similar preference for the one or the other valency sentence pattern as they do for the verb CONSIDER. The discrepancies between the mechanical search for the total occurrences ( $3^{\text {rd }} \mathrm{row}$ ) and the analysed concordance lines
(TOTAL, last row) are due to the 'mishits' (section 7.2.2). This means that although the mechanical search shows that, for example, FÜHLEN occurs 28 times as TE of CONSIDER, the manual investigation reveals that this is only true for 11 occurrences.

Interestingly the TE ÜBERLEGEN shows a different syntactic affinity when used for CONSIDER and when used for THINK. As a TE of CONSIDER it occurs most frequently with the valency sentence pattern <sub obj-wh>, while as a TE of THINK it occurs most frequently with the pattern <sub prp-about>, a pattern which is, in this investigation, unique to the verb THINK.

So far it can be stated that the valency sentence patterns of CONSIDER are to some degree an indicator for the choice of TE. In order to further investigate the syntactic affinity of a chosen TE to the English valency sentence pattern of the verb to be translated, the next section will look at the frequent TEs in greater detail and compare their valency sentence patterns with those of the investigated English verbs.

### 7.5 The Most Frequent TEs and Their Valency Sentence Patterns

TEs are interpretations of a text expressed in another language. As such they are subjective and it should not be too surprising that a number of TEs for a word are available. However, since translators undergo training it can be assumed that they will use similar TEs and similar structures when translating a text. This assumption was confirmed in the frequency analysis of the TEs. In this section I will look at some of the more frequent TEs, their valency sentence patterns and some syntactic peculiarities beyond valency sentence patterns in the use of the TEs.

### 7.5.1 The TE HALTEN

The verb HALTEN can occur with a wide range of valency sentence patterns (E-VALBU). As a TE for the verbs CONSIDER, BELIEVE, FEEL and THINK it occurs only in the pattern <sub obj prp>, where the three different prepositions 'für', 'an' and 'von' are possible. Most frequent is the translation with the preposition 'für', there are only four occurrences with the preposition 'von', and one occurrence with 'an' in the analysed concordance lines. Depending on the preposition, the meaning or sense of HALTEN changes slightly: 'HALTEN für' expresses the meaning of 'to have the opinion that someone or something is so or is something', it is evaluating or categorising; 'HALTEN von’, expresses the meaning of 'attach value to something'; and 'HALTEN an' expresses the meaning of 'to stick to a decision or an opinion'.
'HALTEN an' occurs with the valency sentence pattern <sub obj> of the verb CONSIDER (49), and 'HALTEN von' occurs only with the verb THINK (figure 7.2).

```
49) If one considers social criteria, it hits you right in the eye ...
49-G) Hält man sich an soziale Kriterien, dann ist nicht zu übersehen, dass ...
```



Fig. 7.2: The patterns of THINK for the TE 'HALTEN von'

The low frequency of 'HALTEN an' indicates that this translation can probably be termed 'creative', especially as a more typical TE could have been used as exemplified in 49'-G.

147'-G) Wenn man die sozialen Kriterien bedenkt, dann ist nicht zu übersehen, dass ...

The TE 'HALTEN von' only seems to be a TE of the verb THINK. As can be seen in figure 7.2 it seems to be used when THINK is part of a wh-clause. However, the occurrences are
too low to make a conclusive statement and further research into the verb THINK would be needed to make a general statement on the use.

In the majority of all occurrences across the four verbs the TE HALTEN always occurs with the preposition 'für'. In identifying the valency patterns for HALTEN a decision has to be made as to whether 'HALTEN für' should be seen as the TE, i.e. a multi-word unit, or whether 'für' is treated as a preposition. For example, should the pattern for $50-\mathrm{G}$ be <sub obj nom> or <sub obj prp-für-nom>?

```
50) The European Central Bank considers monetary stability to be its only duty.
```

<sub obj vb-to-be-nom>
50-G) Die Europäische Zentralbank hält Währungsstabilität für ihre einzige Aufgabe.
? <sub obj nom>
? <sub obj prp-für-nom>

Since the multi-word unit 'HALTEN für' is the dominating translation for the verb CONSIDER, the decision was taken to treat it as one unit of meaning, the valency sentence pattern for 50$G$ is then <sub obj nom>. The multi-word unit 'HALTEN für' has a limited number of valency sentence patterns. These are <sub obj adj / nom>, and variation of this with correlate 'es' (it) <sub es adj / nom vb-dass> and <sub es adj / nom vb-zu-ints. According to E-VALBU 'HALTEN für' often occurs in a sentence structure with correlate 'es'. Figure 7.3 shows that the correlate 'it' is generally retained in the translations and the valency sentence patterns are therefore similar in English and German.


Fig. 7.3: CONSIDER and 'HALTEN für' with the correlates 'it' and 'es' respectively

As shown in table 7.12 (p 243) 'HALTEN für' is the most frequent TE for the English verb CONSIDER. It is the preferred TE when the valency sentence pattern of CONSIDER includes a nominal or adjectival complement. However, as discussed in section 6.2.4 (p 178) nominal and adjectival complements can be expressed with three different structures: with or without a to-infinitive before the predicative, but also with a subordinate that-clause. Therefore, it is not surprising that the TE 'HALTEN für' is also often used as a TE for the valency sentence pattern <sub obj-that> of CONSIDER.

```
51) We consider that Amendment No 20 is superfluous. <sub obj-that>
51-G) Wir halten Änderungsantrag 20 für überflüssig. <sub obj adj>
```

Especially for the verbs BELIEVE, FEEL and THINK, which frequently occur with the valency sentence pattern <sub obj-that> (cf. table 6.10, p 217) 'HALTEN für' is a frequent TE (cf. table 7.14, p 252), as demonstrated in example sentence 52 for BELIEVE.
52) I do not believe that the Commission's proposal is completely satisfactory. <sub obj-that> 52-G) Ich halte den Richtlinienentwurf der Kommission nicht für ganz ausreichend. <sub objadj>

When 'HALTEN für' is used as a TE for the valency sentence pattern <sub obj-that> of CONSIDER, the valency sentence pattern of 'HALTEN für' can vary, as shown in figure 7.4. This is also true for BELIEVE, FEEL and THINK, i.e. no difference between the verbs was noticed.


Fig. 7.4: CONSIDER with the valency sentence pattern <sub obj-that> and the TE 'HALTEN für'

| CONSIDER |  | HALTEN FÜR |  |
| :---: | :---: | :---: | :---: |
| <sub obj-that> | 26 | <sub obj adj> | 15 |
|  |  | <sub obj nom> | 4 |
|  |  | <sub es adj vb-zu-inf> | 4 |
|  |  | <sub es adj vb-dass> | 3 |
| <sub obj nom> |  | <sub obj nom> | 3 |
|  |  | <sub obj adj> | 1 |
| <sub obj adj> | 27 | <sub obj adj> | 27 |
| <sub obj nom-as> | 2 | <sub obj nom> | 2 |
| <sub obj adj-as> | 3 | <sub obj adj> | 3 |
| <sub obj vb-to-be-nom> | 19 | <sub obj nom> | 12 |
|  |  | <sub obj adj> | 7 |
| <sub obj vb-to-be-adj> | 49 | <sub obj adj> <sub obj nom> | 48 |
| <sub obj vb-to-inf> | 1 | <sub obj adj> | 1 |
| <sub it nom vb-that> | 3 | <sub es adj vb-dass> | 2 |
|  |  | <sub obj nom> | 1 |
| <sub it adj vb-that> | 25 | <sub es adj vb-dass> | 17 |
|  |  | <sub obj adj> | 3 |
|  |  | <sub es adj vo-inf-zu> | 5 |
| <sub it nom vb-to-inf> | 2 | <sub es nom vb-dass> | 2 |
| <sub it adj vb-to-inf> | 39 | <sub es adj vb-zu-inf> <sub es adj vb-dass> <sub obj adj> | $\begin{array}{r}28 \\ 9 \\ 2 \\ \hline\end{array}$ |
|  | 200 |  | 200 |

Tab. 7.15: Comparison of the valency sentence patterns of CONSIDER with the valency sentence patterns of the TE 'HALTEN für'

In summary it can be stated that the most frequent TE of CONSIDER, 'HALTEN für', is mainly used when CONSIDER occurs with a nominal or adjectival complement or a that-clause expressing these. Since many of the valency sentence patterns of CONSIDER include a nominal or adjectival complement it is not surprising that 'HALTEN für', which can only occur in the sentence patterns <sub obj nom> and <sub obj adj>, is a preferred TE of CONSIDER. Changes in the surface structure are often necessary, as shown in table 7.15 which is based on the analysis of 200 concordance lines from the EuroParl corpus, since 'HALTEN für' cannot be extended with an infinitive clause and has no equivalent structure for a that-clause.

### 7.5.2 The TE BETRACHTEN

The verb BETRACHTEN is the second most frequent TE for CONSIDER. Similar to the TE 'HALTEN für', BETRACHTEN is most frequently used as a TE for CONSIDER with a valency sentence pattern that includes a nominal or adjectival complement. But unlike 'HALTEN für', BETRACHTEN is also a suitable TE for the divalent valency sentence pattern <sub obj>. Table 7.16 provides a comparison of the valency sentence patterns of CONSIDER with those of BETRACHTEN.

| CONSIDER |  | BETRACHTEN |  | BETRACHTEN ALS |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| <sub obj> | 29 | <sub obj> | 28 |  |  |
|  |  | <sub obj prp-unter> | 1 |  |  |
| <sub obj-that> | 7 |  |  | <sub obj adj> | 5 |
|  |  |  |  | <sub obj nom> | 2 |
| <sub obj-wh> | 1 | <sub es prp-unter vb-w> | 1 |  |  |
| <sub obj nom> | 26 |  |  | <sub obj nom> | 22 |
|  |  |  |  | <sub obj nom-wie> | 1 |
|  |  |  |  | <sbu obj adj> | 3 |
| <sub obj adj> | 23 |  |  | <sub obj adj> | 22 |
|  |  |  |  | <sub obj nom> | 1 |
| <sub obj nom-as> | 36 | <sub obj> | 1 | <sub obj nom> | 35 |
| <sub obj adj-as > | 4 | <sub obj> | 1 | <sub obj adj> | 3 |
| <sub obj vb-to-be-nom> | 42 |  |  | <sub obj nom> <sub obj adj> | 41 1 |
| <sub obj vb-to-be-adj> | 20 |  |  | <sub obj adj> | 17 |
|  |  |  |  | <sub obj nom> | 3 |
| <sub obj vb-to-inf> | 1 |  |  | <sub obj adj> | 1 |
| <sub it nom vb-that> | 3 |  |  | <sub es nom vb-dass> | 3 |
| <sub it adj vb-that> | 3 |  |  | <sub es adj vb-dass> | 2 |
|  |  |  |  | <sub es nom vb-dass> | 1 |
| <sub it nom vb-to-inf> | 1 |  |  | <sub es nom vb-zu-inf> | 1 |
| <sub it adj vb-to-inf> | 4 |  |  | <sub es adj vb-zu-inf> | 4 |
|  | 200 |  | 32 |  | 168 |

Tab. 7.16: Comparison of the valency sentence patterns of CONSIDER with the valency sentence patterns of the TE BETRACHTEN

An analysis of the concordance lines of the patterns <sub obj> showed that BETRACHTEN is often chosen when CONSIDER occurs in a conditional sentence as shown in figure 7.5.

| sub obj |  |  |  |  |  |  | sub obj |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 100) If one considers the net product chain of technology, then ... |  |  |  |  |  |  | 100) Wenn man die Wertschoepfungskette einer modernen Technologie betrachtet, so ... |  |  |  |  |  |  |  |  |
|  | 140) ... if one considers the many questions it leaves unanswered. |  |  |  |  |  |  | 140) ... wenn man die vielen noch offenen Fragen betrachtet. |  |  |  |  |  |  |  |  |
|  | 840) When we consider Classical Greek, ... |  |  |  |  |  |  | 840) Wenn ich mir das klassische Griechenland betrachte, ... |  |  |  |  |  |  |  |  |
|  | 620) Consider events in Kosovo. |  |  |  |  |  |  | 620) Betrachten Sie die Entwicklung im Kosovo. |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | sub obj prp-unter |  |  |  |  |  |  |  |  |  |
|  | 960) I want to consider the report in this light. |  |  |  |  |  | 960) Unter diesem Motto moechte ich den Bericht betrachten. |  |  |  |  |  |  |  |  |  |
|  | PASSIVE |  |  |  |  |  | sub obj |  |  |  |  |  |  |  |  |  |
|  | 220) ... and other solutions could be considered both on a social ... |  |  |  |  |  |  | 220) ... und sozial sowie beschaeftigunspolitisch betrachtet andere Loesungen moeglich waeren. |  |  |  |  |  |  |  |  |
|  | 260) ... legislative provisions, which are considered in isolation and which ... |  |  |  |  |  |  | 260) Wenn diese beiden Vorschriftenpakete isoliert voneinander betrachtet werden, dann ... |  |  |  |  |  |  |  |  |
|  | 640) Citizens' rights are considered with reference to possible malfunctions. |  |  |  |  |  |  | 640) Die Rechte der Buerger werden im Hinblick auf moegliche Funktionsmaengel betrachtet. |  |  |  |  |  |  |  |  |

Fig. 7.5: CONSIDER with the valency sentence pattern <sub obj> and the TE BETRACHTEN

Furthermore, it has been noted during the analysis of the concordance lines that BETRACHTEN is much more likely to be used when CONSIDER is in the passive throughout all the valency sentence

|  |  | HALTEN | BETRACHTEN |
| :--- | :---: | :---: | :---: |
| consider | 117 | 63 |  |
| considers | 19 | 19 |  |
| considered | 9 | 10 |  |
| BE considered | 4 | 56 |  |
| considering | 1 | 2 |  |
|  | 150 | 150 |  |

Tab. 7.17: Occurrences of TEs 'HALTEN für' and BETRACHTEN for the different word-forms of CONSIDER
patterns. As table 7.17 shows, this is rarely the case for HALTEN FÜR. Thus, it could be stated that when CONSIDER occurs in the passive voice the TE BEDENKEN should be given preference over the TE 'HALTEN für'.

Nominal and adjectival complements of CONSIDER are expressed with the particle 'als' for the TE BETRACHTEN, as shown in examples 53-55.

```
53) This settlement cannot be considered interim. <sub obj adj>
53-G) Diese Übereinkunft kann nicht als Interimsregelung betrachtet werden.
    <sub obj nom-als>
54) The protection of maternity cannot be considered as a form of unequal treatment.
    <sub obj nom-as>
54-G) Der Schutz der Mutterschaft kann nicht als ungleiche Behandlung betrachtet werden.
    <sub obj nom-als>
55) I consider the Chirac / Schroeder deal on this to be a shabby affair.
    <sub obj vb-to-be-nom>
55-G) Den diesbezüglichen Deal zwischen Chirac und Schröder betrachte ich als schmutziges
    Geschäft. <sub obj nom-als>
```

As can be seen in the above analysis, the particle 'als' is shown separately, following the decision taken for 'as' for the verb CONSIDER. This seems only consistent, since BETRACHTEN, unlike 'HALTEN für', can occur as a TE with or without the particle 'als'. In addition, because of the similarity of 'as' and 'als' BETRACHTEN is the preferred TE (table 7.12, p 243) for the valency sentence structures <sub obj nom-as> and <sub obj adj-as> of CONSIDER as shown in example 54 above.

The differences between the use of two most frequent TEs of CONSIDER, 'HALTEN für' and BETRACHTEN, are also notable when looking at the differences in collocation pictures of CONSIDER for each TE (figures 7.6 and 7.7).

| L3 | L2 | L1 | Centre | R1 | R2 | R3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | THE | I | CONSIDER | IT | TO | TO |
| THE | DO | WE | CONSIDERS | THAT | BE | BE |
| I | THAT | NOT | CONSIDERED | THE | A | OF |
| IN | WHICH | ALSO | CONSIDERING | THIS | IMPORTANT | IMPORTANT |
| WHICH | I | COMMISSION |  | TO | APPROPRIATE | THAT |
| THIS | WE | IT |  | A | NECESSARY | IS |
| SAY | BUT | THEREFORE |  | ESSENTIAL | THE | IN |
| WE | WHY | ARE |  | NECESSARY | ESSENTIAL | AND |
| AND | THEREFORE | IS |  |  | IT | THE |
| DOES | COMMISSION | YOU |  |  | OF | VERY |
| COUNCIL | BECAUSE | AND |  |  | COMMON | POSITION |
|  | POINT |  |  |  | IN | FOR |
|  | IT |  |  |  | ACCEPTABLE |  |

Fig. 7.6: Collocations of CONSIDER for the TE 'HALTEN für'

| L3 | L2 | L1 | Centre | R1 | R2 | R3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| THE | THE | BE | CONSIDER | THE | BE | A |
|  | TO | TO | CONSIDERED | TO | A | OF |
| THAT | WHICH | WE | CONSIDERS | AS | TO | TO |
| OF | CAN | 1 | CONSIDERING | IT | THE | THE |
| WE | IF | IS |  | THIS | AS | BE |
| IT | NOT | AND |  | A | AN | IN |
| AND | CANNOT | NOT |  | THAT | IN | AND |
| IS | WE | ONE |  | IN |  | THAT |
| COMMISSION | MUST | ARE |  | THEIR |  | ONE |
| WHICH | COULD | YOU |  | THESE |  | AN |
| RULES | THAT | WILL |  |  |  | AS |
| 1 | ARE | THEY |  |  |  | ESSENTIAL |
| HAVE | BECAUSE | IT |  |  |  |  |

Fig. 7.7: Collocations of CONSIDER for the TE BETRACHTEN

The analysis so far has shown that CONSIDER has a variety of valency sentence patterns which include a nominal or adjectival complement. The valency sentence patterns of the two most frequent TEs 'HALTEN für' and BETRACHTEN also typically occur with a nominal or adjectival complement. However, sentence structure beyond the valency sentence pattern seems to have an impact on the preferred choice between the two most frequent TEs. When CONSIDER occurs in a passive or a conditional clause the chosen TE will be most likely BETRACHTEN, since 'HALTEN für' rarely ever occurs with these sentence structures.

### 7.5.3 The TE PRÜFEN

The high frequency of PRÜFEN as an equivalent for CONSIDER could be a specific finding of the EuroParl investigation as it does not occur as an equivalent in either of the OMC corpora. It occurs as a TE for the valency sentence patterns <sub obj> and <sub obj-wh> as shown in example sentences 56 and 57.

```
56) The Commission has carefully considered the proposed amendments. <sub obj>
56-G) Die Kommission hat die vorgeschlagenen Änderungspunkte sorgfältig geprüft. <sub obj>
57) They will have to consider whether an alternative can be found. <sub obj-wh>
57-G) Sie werden prüfen müssen, ob es nicht irgendeine Alternative gibt. <sub obj-w>
```

PRÜFEN seems to be chosen as a TE based on semantic grounds. As can be seen in the above example sentences, the object complement generally represents an entity which can be 'reviewed' or 'checked', such as a proposal, a report or a question.

### 7.5.4 Support-Verb-Constructions vs. Adjuncts

Support-verb-constructions are also frequently used to express the meaning of CONSIDER in German. The most frequent are 'der Ansicht / Meinung / Auffassung SEIN' which are generally followed in German with a subordinate clause introduced with 'dass', which is the syntactic equivalent to the English that-clause, as exemplified with example sentence 58.

```
58) Many consider that changes should only be made where strictly necessary. <sub obj-that>
58-G) Viele sind der Meinung, dass die Veränderungen nur im absolut notwendigen Umfang
    getroffen werden dürfen.
<sub obj-dass>
```

The pattern <sub obj-that> is the only pattern where the nouns 'Meinung / Ansicht / Auffassung' are used as support-verb-constructions. The meaning is similar to that of the respective verbs MEINEN / ANSEHEN / AUFFASSEN. It should probably be noted though that MEINEN and ANSEHEN are more frequently used as TEs for CONSIDER than

AUFFASSEN, which has only three occurences as equivalent of CONSIDER in EuroParl (59).

```
59) If the proposals from this second reading are adopted, they would be considered as a
    real provocation by all involved in the sector. <sub obj nom-as>
59-G) Sollten die Vorschläge dieser zweiten Lesung angenommen werden, dann werden alle
    Beteiligten des Sektors sie als eindeutige Provokation auffassen. <sub obj nom-als>
```

The TEs 'Ansicht / Meinung / Auffassung nach' generally function as adjunct and are used for the other valency sentence patterns of CONSIDER, as shown in example sentence 60.

```
60) The Commission considers Amendment No 23 to be excessively broad. <sub obj vb-to-be-adj>
60-G) Änderungsantrag 23 ist nach Ansicht der Kommission zu umfassend. ADJUNCT
```

Although also based on a verb, ERACHTEN, the noun 'Erachtens' is only used as an adjunct, 'PRONOUN Erachtens', irrespective of the valency sentence pattern of CONSIDER, as shown in example sentence 61.

```
61) We also consider it essential for political progress and improvements to be made
    alongside economic progress. <sub obj adj>
61-G) Ebenso sind neben den Fortschritten im wirtschaftlichen Bereich unseres Erachtens
    unbedingt auch Fortschritte und Verbesserungen auf politischer Ebene erforderlich.
    ADJUNCT
```

The support-verb-constructions 'in Erwägung / Betracht ZIEHEN' are also based on verbs, ERWÄGEN and BETRACHEN, and are mainly used as TEs for the valency sentence patterns <sub obj> and <sub obj-ing>, as shown in example sentences 62 and 63.

```
62) The Commission is not considering this option. <sub obj>
62-G) Die Kommission zieht diese Moeglichkeit nicht in Betracht. <sub obj>
63) I would ask the Commissioner to consider speaking with the embassadors. <sub obj-ing>
63-G) Ich bitte Sie, ein Gespräch mit den Botschaftern in Erwägung zu ziehen. <sub obj>
```

The differences in the use a TE based on the valency sentence pattern of CONSIDER between the verbs and the support-verb-constructions is interesting to note. While BETRACHTEN, one of the most frequent TEs for CONSIDER, can occur with a variety of
valency sentence patterns of CONSIDER, the support-verb-construction occurs predominantly with two patterns of CONSIDER. On the other hand, the verb ERWÄGEN and the support-verb-construction 'in Erwägung ZIEHEN' both occur as TEs in the same syntactic environment of CONSIDER.

In summary it can be noted that the word-class can change in translations, i.e. a verb can be translated as a noun phrase functioning syntactically as an adjunct. Or the meaning of a verb in one language can be expressed by a noun in a support-verb-construction in another language. Although the nouns in support-verb-constructions relate to verbs, support-verbconstructions do not necessarily occur with the same valency sentence patterns as the respective verbs, i.e. support-verb-constructions have their own valency sentence patterns.

### 7.5.5 The TE BEDENKEN

The German verb BEDENKEN occurs most frequently as a TE of CONSIDER for the pattern <sub obj-that>, followed by the patterns <sub obj> and <sub obj-wh> (table 7.12, p 243). As shown in figure 7.8, its use in German seems to be mainly as a fixed phrase 'wenn man bedenkt'. The English counterpart is often a conditional clause with 'if' or 'when'.

Although there are occurrences when the TE BEDENKEN is not used in this fixed phrase, it is much more common with it. In order to investigate how the verb BEDENKEN is used in German, a search for its word-forms 'bedenke', bedenken' and 'bedenkt' was undertaken in the German DeReKo corpus. Most frequent is the word-form 'bedenken' with 46,383 occurrences, followed by 'bedenkt' with 13,413 occurrences, and finally 'bedenke' with 2,739 occurrences. An investigation of 100 randomly chosen concordance lines revealed that the phrase 'zu bedenken geben' is most frequent with 48 occurrences, followed by the phrase
'wenn man bedenkt' with 21 occurrences. Therefore, with regard to the phrase 'wenn man
bedenkt' the EuroParl results seem to reflect actual German language use.


Fig. 7.8: CONSIDER with the TE BEDENKEN

Based on the above discussion it can be stated that the TE BEDENKEN is primarily used very specifically for conditional clauses along the lines 'if / when PRONOUN CONSIDER'. In the German equivalent structure the pronoun is often expressed with the neutral 'man' irrespective of English pronoun, as demonstrated in example sentence 64.
64) When we consider that a conference will soon be held in Moscow ...
64-G) Wenn man bedenkt, dass demnächst eine Konferenz in Moskau stattfindet ... <sub obj-that>

In summary, this section has shown that syntactic factors beyond the valency sentence pattern, e.g. voice or conditional structures, also play a role in the choice of a TE. The next section will look into the substitutability of TEs which frequently occur with a valency sentence pattern of CONSIDER, i.e. the synonymy of TEs.

### 7.5.6 Interchangeability of the TEs

In this section I briefly investigate whether the TEs which occur with the same valency sentence pattern of CONSIDER can be exchanged with each other. It is hypothesised that the TEs which occur with the same pattern of CONSIDER function as substitutes of each other (table 7.12, p 243), i.e. they are near-synonyms. Three valency sentence patterns of CONSIDER and their preferred TEs will be looked into. For this, I chose one example sentence from the analysis and replaced the TE with other TEs that also occur with this pattern. Only TEs which occur with 5\% or more for a certain valency sentence pattern were included in the exchange.

### 7.5.6.1 The valency sentence pattern <sub obj> and its TEs

The most frequent TE for the pattern <sub obj> is BERÜCKSICHTIGEN. The chosen example sentence 65 is in the passive in English, but the German equivalent is in the active. This does, however, not change the suitability for an exchange as shown in 65'-G.
65) At the same time, the workers' legitimate interests need to be considered.

65-G) Gleichzeitig berücksichtigen wir berechtigte Interessen der Arbeitnehmer.
<sub obj>
Possible replacement with verbs also occurring with the pattern <sub obj>:

| betrachten | / | prüfen | / sehen | <sub obj> |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| ?überlegen | $/$ | sehen $\ldots$ an | $/$ | bedenken |  |
| erwägen | $/$ | ziehen $\ldots$ in Erwägung / in Betracht |  |  |  |

Possible replacement with verbs also occurring with the pattern <sub prp>:
denken $\ldots$ an / denken $\ldots$ über $\ldots$ nach <sub prp>

| 65'-G) | Gleichzeitig werden berechtigte Interessen der Arbeitnehmer berücksichtigt. |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| betrachtet | $/$ | geprüft | gesehen |  |  |
| ?überlegt | $/$ | angesehen | bedacht |  |  | <sub obj>

Syntactically all of the substitutions are correct. All, but two, TEs occur with the same sentence pattern as CONSIDER <sub obj>. The TEs NACHDENKEN and DENKEN require a prepositional complement, either 'über' or 'an', and thus have the valency sentence pattern <sub prp>.

Acceptability as a replacement for the meaning, i.e. synonymous use, is purely subjective. It is my belief that different proficient speakers of German will come to different results. Furthermore, a wider context than sentence level will most likely also influence the decision on acceptability as a near-synonym. The one I am personally most struggling with is replacement with ÜBERLEGEN. Therefore, I chose one example sentence (66) that was translated with ÜBERLEGEN in EuroParl and exchanged the verbs.


When ÜBERLEGEN occurs with the valency sentence pattern <sub obj> all the alternative verbs seem suitable replacements.

### 7.5.6.2 The valency sentence pattern <sub obj-that> and its TEs

CONSIDER with the valency sentence pattern <sub obj-that> is frequently translated with a support-verb-construction, as shown in 67.

```
67) The Council considers that a quality education is one of the essential features of
    prosperous and open societies. <sub obj-that>
67-G) Der Rat vertritt die Ansicht, dass eine gute Ausbildung zu den Wesensmerkmalen einer
    offenen Wohlstandsgesellschaft gehört.
    <sub obj-dass>
    ?berücksichtigt / denkt / sieht / findet
    bedenkt / meint / glaubt
```

The TEs which occur with the valency sentence pattern <sub obj-dass>, which is equivalent to the pattern <sub obj-that> of CONSIDER seem to work as substitutes of each other. The only questionable replacement is probably the verb BERÜCKSICHTIGEN. Contrary to the impression given in table 7.12 ( p 243 ) there are actually only 37 occurrences in total of BERÜCKSICHTIGEN as an equivalent for CONSIDER with the pattern <sub obj-that> in the EuroParl corpus, indicating that BERÜCKSICHTIGEN is a rare or specific translation. BERÜCKSICHTIGEN generally represents the meaning of 'to take into account' for CONSIDER, as in example sentence 68.

```
68) Recital J of the Arroni report ... rightly considers that a currency is not only a
    technical instrument to make trade easier. <sub obj-that>
68-G) Ich möchte auch hervorheben, daß der Erwägungspunkt J des Berichts Arroni, ... , zu Recht
    berücksichtigt, daß Geld nicht nur ein technisches Instrument zur Erleichterung der
    Austauschbeziehungen darstellt.
    <sub obj-dass>
```

Exchange in example 68 is not only restricted by the specific meaning of BERÜCKSICHTIGEN, but also because the alternative TEs generally require a human entity in subject position. However, example 69 demonstrates the specific meaning of BERÜCKSICHTIGEN, for which only BEDENKEN seems to be a suitable alternative in most, but not all, cases.

```
And when you consider that the sensible use of medicines can in many cases eliminate the
need for in-patient treatment, it becomes quite clear that medicines can be very
effective in reducing costs.
<sub obj-that>
```

```
69-G) Wenn Sie berücksichtigen, daß durch vernünftige Anwendung von Medikamenten viele
    stationäre Behandlungen überflüssig werden, ist der kostendämpfende Effekt von
Medikamenten ganz eindeutig. <sub obj-dass>
?der Ansicht sind / ?denken l ?sehen ?finden
bedenken / ?meinen / ?glauben
```

The most frequent TE, 'HALTEN für', also occurs frequently as a TE of CONSIDER with the valency sentence pattern <sub obj-that>, but replacement with 'HALTEN für' requires a change in sentence structure, as shown in example 70.

```
70) I do not consider that this is appropriate. <sub obj-that>
70-G) Ich halte dies nicht für angebracht. <sub objadj>
```


### 7.5.6.3 The valency sentence patterns <sub obj vb-to-be-adj / -nom> and their TEs

The patterns <sub obj vb-to-be-adj / -nom> are interesting as there is no equivalent German sentence pattern, i.e. whichever TE is chosen the sentence structure will be different. The TE 'HALTEN für' occurs most frequently with the patterns with $35 \%$ of all occurrences as a TE (table 7.12, p 243). Other TEs which also occur for this pattern of CONSIDER are BETRACHTEN (31\%), 'der Ansicht / Meinung / Auffassung SEIN' (4\%, 2\% and 4\% respectively), DENKEN (4\%), FINDEN (34\%), ANSEHEN (26\%), GELTEN (40\%), ERACHTEN (28\%), MEINEN (10\%), and GLAUBEN (28\%).

```
65) The Committee considers these areas to be important. <sub obj vb-to-be-adj>
65-G) Der Ausschuss hält diese Bereiche für wichtig. <sub objadj>
```

a) Der Ausschuss findet diese Bereiche wichtig.
b) Der Ausschuss betrachtet diese Bereiche als wichtig.
c) Der Ausschuss sieht diese Bereiche als wichtig an.
d) Der Ausschuss erachtet diese Bereiche als wichtig
e) Diese Bereiche gelten dem Ausschuss als wichtig.
f) Der Ausschuss ist der Ansicht / Meinung / Auffassung, dass diese Bereiche wichtig sind.

```
<sub obj vb-to-be-adj> <sub obj adj>
<sub obj adj>
<sub obj adj-als>
<sub obj adj-als>
<sub obj adj-als>
<sub dat adj-als>
<sub obj-dass>
g) Der Ausschuss denkt, dass diese Bereiche wichtig sind. / Der Ausschuss denkt, das sind wichtige Bereiche. <sub obj-dass>
h) Der Ausschuss meint, dass diese Bereiche wichtig sind. / Der Ausschuss meint, das sind wichtige Bereiche. <sub obj-dass>
i) Der Ausschuss glaubt, dass diese Bereiche wichtig sind.
```

In the above substitutions a to $i$, FINDEN (a) is the only TE which occurs with the same valency sentence pattern as 'HALTEN für'. Both TEs take the same valency sentence pattern <sub obj adj> which is closest to the English sentence structure. The other verbs occur either with the valency sentence pattern <sub obj adj-als> (examples b to f), or with the pattern <sub obj-dass> (examples g to j ). Neither pattern is given preference as each includes verbs that are frequently used as TE for CONSIDER with this pattern.

As can be seen in the transformation example (e), the verb GELTEN does not allow showing the Agent or Perceiver in subject position. Therefore GELTEN is generally used as a TE for CONSIDER in a passive structure (71).

```
71) Pius-Njawe is considered to be the father of the freedom of press on the African
    continent. <sub obj vb-to-be-nom>
71-G) Pius Njawe gilt als Begründer der Pressefreiheit auf dem afrikanischen Kontinent.
    <sub nom-als>
```

Nevertheless, occurrences in the active are also recorded in EuroParl as shown in example 72.
72) All Member States consider microchipping to be a reliable method of identification ...
<sub obj vb-to-be-nom>
72-G) In allen Mitgliedstaaten gilt die Verwendung von Mikrochips als zuverlaessige Methode der Identifizierung ...
<sub nom-als>

In these cases valency sentence patterns are not able to show the syntactic differences in sentence structure. In transformation f and example 72 the English object, 'these areas' and 'microchipping' respectively, become the subject in the German translation. And the subject of the English sentences can be added via a preposition, 'beim Ausschuss' and 'in allen Mitgliedstaaten' respectively.

In summary, this section looked at the valency sentence patterns of CONSIDER and most frequent TEs for each pattern. It was noted that the most frequent TEs generally occur with
the same valency sentence pattern as CONSIDER. However, this is not always the case, as sometimes there is no equivalent German structure to an English valency sentence pattern. With regard to substitution, i.e. synonymy of TEs, sharing the same pattern, it has been found that exchange depends on various factors beyond the valency sentence pattern and is largely a matter of personal preference. However, in many instances replacement was found to be possible, TEs that occur more frequently with a valency sentence pattern of CONSIDER are especially found to be substitutes for each other.

### 7.6 Conclusion

The English verb CONSIDER occurs with a wide range of valency sentence patterns, and also has a wide variety of German interpretations. However, a link between the number of valency sentence patterns a verb can occur with and the number of possible German equivalents or TEs could not be found. For example, the verb THINK, which is often seen as a near-synonym of CONSIDER, also occurs with a wide range of valency sentence patterns, but the analysis showed that THINK has far fewer German equivalent expressions.

There are two ways to find out the meaning of a word in another language, these are the use of dictionaries and corpus investigation. It has been found that dictionaries tend to focus on phrases and provide very little information on the local grammar of a word and its possible German TE. Furthermore, a comparison between the entries found in bilingual dictionaries and the results from the corpora investigation showed that, although there are overlaps between the suggested TEs in dictionaries and those found in the corpora, the prominence given to the TEs in the dictionaries differs from that found in actual language use. For example, ÜBERLEGEN is often shown as one of the first entries in dictionaries indicating that it represents a key meaning of CONSIDER, but its actual use in the corpora is less
frequent. On the other hand, the most frequent TE in the corpora, 'HALTEN für', is not given any prominence in the bilingual dictionaries.

A comparison of the TEs for the near-synonymous verbs CONSIDER, THINK, BELIEVE and FEEL has shown that, although the verbs share some TEs, the majority of the TEs are individual to a verb. Even amongst the shared TEs the frequency varies between the verbs, i.e. the verbs have different preferred TEs. This indicates that in a bilingual comparison of English-German differences between the meanings of words are established, i.e. in translation it seems to be rare that the same TE is used for different words although they may express a similar meaning.

Since translators are trained in the interpretation of texts from one language into another, it can be assumed that certain conventions exist amongst translators. The investigation into the valency sentence patterns of CONSIDER and their preferred, i.e. most frequent, TEs (table 7.12, p 243) has shown that valency sentence patterns are to some degree an indicator for the choice of a TE. The TEs show different preferences for the valency sentence patterns of CONSIDER. For example, the support verb construction 'der Ansicht / Meining / Auffassung SEIN' mainly occurs as a TE for CONSIDER with the valency sentence pattern <sub obj-that>, while the TE ÜBERLEGEN shows a strong affinity for the pattern <sub objwh> of CONSIDER.

The analysis has also shown that the shared TEs between the near-synonymous verbs under investigation do not necessarily occur with the same valency sentence patterns, i.e. there is no correlation between shared patterns and shared TEs. For example, ÜBERLEGEN occurs most frequently as a TE for the valency sentence pattern <sub obj-wh> of CONSIDER, and most frequently as a TE for the valency sentence pattern <sub prp-about> of THINK.

Looking into the valency sentence patterns of the TEs has shown that whenever possible the preferred TEs for a valency sentence pattern of CONSIDER will occur with the same pattern, i.e. in the translation structural differences seem to be avoided. In cases where there is no equivalent valency sentence pattern, the preferred TE will occur with a pattern which is close to the original pattern. For example, the pattern <sub obj vb-to-be-nom/-adj> of CONSIDER has no equivalent pattern in German, the most frequent TE 'HALTEN für' occurs with the pattern <sub obj nom/adj>.

In cases where there is a choice of TEs, factors beyond the valency sentence pattern seem to play a role in the choice of the TE. For example, the two most frequent TEs 'HALTEN für' and BETRACHTEN both occur mainly when CONSIDER occurs with a nominal or adjectival complement. However, when CONSIDER is in the passive voice 'HALTEN für' occurs very rarely, almost never, as a TE. In this case the TE BETRACHTEN is selected. Similarly, the TE BEDENKEN is frequently chosen as a TE when CONSIDER occurs in a conditional clause.

Taking the above considerations into account it has been found that substitution of TEs sharing the same pattern is largely a matter of personal interpretation, i.e. preference. Replacement, i.e. synonymous use of TEs, was found to be possible in the majority of instances. It appears that the more frequently the TEs are used with a valency sentence pattern of CONSIDER, the more likely they are substitutes for each other.

In conclusion, it can be stated that whilst the transfer of meaning from one language into another language is largely based on subjective interpretation, a contrastive corpus analysis can help to identify conventions that exist amongst translations. The case study looked at possible conventions between the valency sentence patterns of a verb and those of its preferred TEs. It has been shown that valency sentence patterns indicate to some extent the
choice of a TE. It has also been found that other syntactic and structural features beyond valency sentence patterns can further narrow down the choice of a TE.

In the next chapter I will demonstrate how the findings of the case study can be applied in practice and suggest a specimen bilingual dictionary entry English-German for the verb CONSIDER.

## 8 SPECIMEN DICTIONARY ENTRIES FOR ‘CONSIDER’

### 8.1 Introduction

Amongst the number of possible applications for the findings of the case study of CONSIDER in the previous two chapters dictionary compilation is chosen for further discussion. Bilingual dictionaries are often criticised for "offering many [lexical] choices but few instructions regarding sentence structure" (Teubert 2004b: 82). My argument is that current practice in bilingual dictionary compilation needs re-thinking, and that a new practice is needed which shows lexical and syntactic information in a comparable way between two languages (cf. section 3.4, p 61).

The findings of the case study are taken further, building the basis for two suggestions of dictionary compilation for language learners. The first suggestion discusses a specimen entry for CONSIDER and its possible translation equivalents in a bilingual English-German dictionary entry, the second suggestion is for a monolingual English thesaurus for German learners of English. The entries for the specimen thesaurus are grouped by so-called 'semantic fields'. The term is used very loosely here for groups of words of related concepts. These could also be called synonyms, but the term 'synonym' is too restrictive as it generally refers to words or phrases that mean exactly or nearly the same as another word or phrase. The idea of a thesaurus based on semantic fields originates from Schumacher's (1986) book 'Verben in Feldern", which groups various verbs according to related concepts and discusses their syntactic differences in language use, i.e. their valency complements.

Reference is made to current practice in English and German monolingual dictionary entries and bilingual entries in order to establish the strengths and weaknesses of these from a bilingual or learner perspective. Monolingual dictionaries are included in the discussion as they are often recommended to and used by language learners. It will be shown that the
presentation of the syntactic information in monolingual learner dictionaries is generally not suitable or sufficient for learners to realise differences in sentence structure and use between the foreign/learnt language and their native language. The reason for this is that monolingual dictionaries are not aimed at learners with a specific language background, for example an English dictionary considering the needs of German speakers or vice versa, but are aimed at a multilingual mass audience. As a result, the syntactic information is presented in the prevailing standards of native language analysis, and not based on the learners' needs. As will be seen, this is also the case in bilingual dictionary compilation. The analysis of current practice in displaying lexical and syntactic information draws on the findings of the presented case study.

Section 8.2 discusses monolingual learner dictionaries. In 8.2.1 two English monolingual learner dictionaries, the Collins Cobuild English Dictionary, CCED (1995), and the Valency Dictionary of English, VDE (Herbst et al. 2004) are compared. Both dictionaries provide more syntactic information than most other standard dictionaries; and both dictionaries opt for giving the grammatical information based on word-class or part-of-speech, e.g. noun, verb, adjective, etc., rather than on function such as subject complement, object complement, adjectival complement, etc.. As a result, both dictionaries, though based on differing theoretical concepts, are very similar in appearance. In contrast, section 8.2.2 will look at a German monolingual dictionary, the Valenzwörterbuch Deutscher Verben, VALBU (Schumacher et al. 2004), which is also available online (E-VALBU). The comparison of the different monolingual dictionaries reveals the different practices in British and German dictionary compilation.

Section 8.3 will look at some bilingual dictionary entries and discuss the presentation of lexical and syntactic information in comparison to the findings from the corpus analysis. It will be seen that bilingual dictionaries tend to give phrases and their equivalents with very little
other information on the use of the words presented in a sentence. This often leaves the user at a loss when trying to identify the most appropriate meaning and use of a word. Furthermore, this practice of showing phrases presupposes that the user is able to identify the underlying syntactic structure of the phrase and apply it to other contexts.

Based on the identified strengths and weakness and the findings from the corpus investigation, section 8.4 will be devoted to discussing specimen dictionary entries for the verb CONSIDER. In 8.4.1 an entry in a bilingual dictionary for the verb CONSIDER and its German equivalents will be discussed. This specimen entry is based on the corpus investigation carried out for the case study and on valency theory. However, whilst it is believed that the approach shown is an improvement on current practice, some reservations regarding the value and reliability of bilingual dictionaries may remain. These reservations are expressed by Sinclair (2001: 88) as "neither translators nor lexicographers are guaranteed to be consistent, and there may be gaps and discrepancies that are difficult to sort out". Similarly, Clear (1996: 273) comments that "it is one thing to isolate translation equivalents, it is quite another to include them in a dictionary, as the 'lump-to-lump' correspondence of corpus data will require indexing in the bilingual dictionary as a single 'word-to-word' correspondence". Section 8.4.2 will introduce suggestions for a thesaurus-like dictionary, which is based on semantic fields. Again, the entries are based on the findings from the case study and discuss entries for the verbs CONSIDER, BELIEVE, FEEL and THINK which could be summarised as 'verbs of evaluation'. This section will also include a discussion of the issues involved regarding the categorisation of words in a thesaurus.

The development of the specimen dictionary entries aims to show how the local grammar of words, i.e. syntactic structures, can help learners to achieve greater accuracy in language production and help translators in the choice of translation equivalent.

### 8.2 Monolingual Learner Dictionaries

### 8.2.1 Collins Cobuild English Dictionary and Valency Dictionary of English

The Collins Cobuild English Dictionary, CCED (1995) is based on Sinclair's (2004: 18-19) claim that there is a strong interdependence between lexis and grammar and his criticism of current linguistic practice to ignore this, resulting in "grammars which make statements about undifferentiated words and phrases [leaving] the user with the problem of deciding which of the words or phrases are appropriate to the grammatical statement" and "dictionaries [that] give very little help". In aiming to close this gap, pattern grammar was developed during the compilation of the CCED (Francis 1993: 137). The dictionary includes an extra column with coded grammar information relevant to a respective word or word meaning entry (see figure 8.1, p 279). The grammar information, i.e. the patterns, shown as a sequence of part-ofspeech or clause type, e.g. noun, verb, adjective, that-clause, etc., is based on the analysis of concordance lines from the BoE corpus. Similar to valency theory, pattern grammar analysis is based on the active declarative clause, and elements that can occur with almost any word of the same word-class, e.g. adjuncts and subjects, are excluded (Hunston and Francis 2000: 49). According to Williams (2008: 256) the CCED was a revolution in that it introduced the use of corpora in lexicography, "thereby changing not only the source data but the presentation of that data".

The Valency Dictionary of English, VDE, by Herbst et al. (2004) is based on, as the name suggests, valency theory. The VDE shows the valency patterns in which a word occurs and the meaning of a word when used in a particular pattern (see figure 8.2, p 279). The VDE is, like the CCED, based on data from the BoE, and the frequency of patterns is indicated with labels such as 'rare', 'very frequent' and 'frequent'. Herbst et al. (2004: xxv) note that the "various models of valency differ in their classificational approach to complements". Instead of following the traditional way of using functional labels for the complements, e.g. subject or accusative complement, they decided to describe the complements with respect to their
formal realisation, i.e. the part-of-speech. Herbst et al. (ibid.) do not give their rationale for this decision, but only mention that "both for theoretical and lexicographical purposes, complements are best described in terms of formal categories such as phrases and clauses". This view seems to correspond with the CCED, as, according to the investigations of Hunston and Francis (2000: 152), the structural or functional interpretation of complements rarely adds to the description of a word and "all that is important to say about a verb could be said in terms of its formal realisations and its meaning group". As a result, the entries of the CCED and the VDE look very similar. However, the VDE is more detailed as it provides additional information regarding passivation. Table 8.1 shows a comparison of the entries of CONSIDER in the two dictionaries and a possible analysis as valency complements as suggested in section 6.2.1, p 173.


Tab. 8.1: Comparison CCED, VDE and valency types

As is typical for monolingual dictionaries, the various identified meanings are given as paraphrases or word definitions. The CCED shows five entries altogether (figure 8.1) of which the first three distinguish between the key meanings 'THINK', 'THINK about (carefully)
consider /kansidər/ considers, considering, considered
1 If you consider a person or thing to be some- VERB thing, you have the opinion that this is what they are. We don't consider our customers to be mere $v_{n}$ to-inf consumers; we consider them to be our friends... I Vnn/adj had always considered myself a strong, competent $\mathrm{Vnasadj}_{\mathrm{n}} \mathrm{n}$ woman... The paper does not explain why foreign ownership should be considered bad... I consider activities such as jogging and weightlifting as unnatural... Barbara considers that pet shops which sell customers these birds are very unfair.
2 If you consider something, you think about it vERB carefully. The government is being asked to consid- =think about er a plan to fix the date of the Easter break... You do $\mathrm{v}_{\mathrm{v}} \mathrm{wh}$ have to consider the feelings of those around you... Consider how much you can afford to pay for a course, and what is your upper limit.
3 If you are considering doing something, you in- VERB tend to do it, but have not yet made a final decision =think about whether to do it. I had seriously considered telling v -ing the story from the point of view of the wives... $\mathrm{V}_{\mathrm{n}}$ Watersports enthusiasts should consider hiring a wetsuit as well as a lifejacket... They are considering the launch of their own political party.
4 You say all things considered to indicate that PHRASE you are making a judgement after taking all the PHR with ct facts into account. All things considered, I think $\frac{\text { PRAGMATicS }}{=\text { allinall }}$ you have behaved marvellously in coming here.
5 See also considered, considering.
Fig. 8.1: CONSIDER in the CCED (1995: 345)
and THINK about (intention), one entry deals with the idiom 'all things considered', and the fifth entry refers the user to the uses of 'considered' and 'considering' as adjectives and adverbs which are dealt with under individual head entries. The key meanings are represented by seven patterns. As can be seen in table 8.1 and figure 8.1 these patterns are unique to the identified meaning, with the exception of the pattern V n which can express either 'THINK about (carefully)' or 'THINK about (intention)'.

The VDE identifies the two key meanings ‘THINK’ and 'REGARD’ (figure 8.2).

| A | 'think' |  |  | B | 'regard' |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Active: $1 / 3 \quad$ Passive: $1 / 3$ | General: 0 only (i) |  |  | Active; $2 / 3$ Passive: $1 / 3$ |  |
| 1 | $[\mathrm{N}]_{\mathrm{A}} /[$ by N$]$ |  |  | 1 | $[\mathrm{N}]_{\mathrm{A}} /$ [by N$]$ |  |
| II | $[\mathrm{N}]_{\mathrm{P}}$ | D1 | T4.6 | Ilobl | $[\mathrm{N}]_{\mathrm{P}-1}$ | T1.3-4 |
|  | [V-ing] ${ }_{P}$ | D2 |  |  | [that-CL]P:it ${ }_{\text {P3 }}$ |  |
|  | [that-CL]P:it | D3 |  |  | $[S]_{\text {P:it }}$ D6 |  |
|  | [wh-CL]P:it | D4 |  |  | [it + pattern of $\left.\mathrm{N}^{\text {III }} / \mathrm{AD} \mathrm{J}^{\text {III }}\right]$ | T1-2.4-5 |
|  | [wh to-INF] ${ }_{\text {P:it }}$ | D5 |  | III | $[\mathrm{N}]_{2}$ | T1 |
| III | [as N] |  | T4 |  | [ADJ] | T2 |
|  | [for N ] |  | T6 |  | [to-INF] | T3 |
| IV |  |  |  |  | [as N] | T4 |
|  |  |  |  |  | [as V-ing] | T5 |
|  |  |  |  |  | [as ADJ] | T5 |

Fig. 8.2: CONSIDER in the VDE (Herbst et al. 2004: 175)

Additional information is given, for example, regarding the minimum and maximum number of complements in active and passive voice. The roman numerals (I, II, III, IV) refer to the semantic role the complements take. As demonstrated in the example sentences (figure 8.3), I refers to the Agent or the subject in the monovalent sentence pattern (M), and II to the patient or object of the divalent sentence patterns, while III and IV refer to the category represented by a predicative complement or prepositional complement respectively. As can be seen, some roles can be realised by different complements. The identification of the valency patterns is indicated by the letters D for divalent patterns and T for trivalent patterns.

M A Cook tilted her head to one side, considering.
D1 $\quad+\mathrm{N}_{\mathrm{p}}$
A He said he would take time to consider the matter. Industrialised nations should consider the impact of their own economic trade and development policies on international migration. Students, in considering a college, should look carefully at who teaches lower-division courses.

The committee said that while security must still be considered, the abolition of visa requirements would greatly encourage contact between ordinary Europeans.
D2 + V-ing ${ }_{\mathrm{p}}$ (very frequent)
A In this case, you should consider seeking professional help. Brian Wilson, Labour's transport spokesman, wrote to Brian Cox, a Stagecoach director, telling him a Labour government would consider referring the company's operation of bus and train services in southwest England to the Office of Fair Trading.
D3 + (that)-CLp:it (frequent)
A Newcomers, living in homes built within the past 20 years, are often the most vociferous ob-

Fig. 8.3: Excerpt of CONSIDER entry in VDE (ibid. p 176)

As can be seen in figure 8.2, it is also possible to assign certain valency patterns to meaning descriptions in the VDE. The meaning THINK is represented by mainly divalent patterns, while the meaning of REGARD seems to be realised mainly through trivalent patterns.

Furthermore, it can be seen in table 8.1 (p 278) that the similarities in the representation of the complementation elements between the VDE and the CCED are striking. It is also notable that both, although referring to the clause, do not show the subject complement but presuppose the readers' knowledge that active clauses have a subject. As I see it, the VDE attempts to show valency complements in a way that is familiar to native English speakers, i.e. the classifications used for the valency complements are tailored to and based on accepted concepts regarding English language analysis. It will be shown later in this section
that these valency complement categories are less suitable for a comparison of English and German sentence structure (cf. section 4.2, p 73).

The comparison of the CCED and the VDE also shows that the representation of meanings or senses in monolingual dictionaries is difficult and often not comparable. Since word meanings have to be inferred from context, their discrete distinction will vary from person to person or from dictionary to dictionary (Teubert 2004c: 5; Yallop 2004: 29). For example, the Longman Dictionary of Contemporary English (2003: 330) differentiates six senses of CONSIDER, WordNet distinguishes nine senses, and the Oxford English Dictionary Online gives eleven senses, and the analysis of 200 concordance lines (section 7.2.2, p 225) showed 20 core translations, i.e. meanings, for the verb CONSIDER. The crucial question addressed in this thesis is whether all of these senses can be distinguished by a syntactic pattern, such as complementation patterns or valency types? Hunston and Francis (1998: 52) go as far as claiming that different words which share the same pattern often have a shared meaning. However, they (ibid. p 55) admit that "the division into meaning groups has been done intuitively", which suggests that it may be difficult for others to replicate their findings. Although the identified complementation patterns in the CCED and the VDE are, as could be expected, the same and only differ in sub-categorisation and information provided, it is difficult to claim with any certainty that the meaning interpretation of a pattern is the same in the two dictionaries.

The difference in the categorisation of the complements of CONSIDER in the CCED and the VDE is shown in table 8.2 for two sample sentences from the EuroParl corpus. For comparison, categorisation by valency complements as suggested in this thesis is also shown.

| Clause structure <br> (based on Quirk et al <br> 1985) | Subject | Verb | Direct <br> object | Complement <br> (object predicative) |
| :--- | :--- | :--- | :--- | :--- |
| 1) | The <br> Commission | considers | this | to be the most cost- <br> effective approach. |
| CCED (1998:345) |  | V | n | to-inf |
| VDE (2004:176) |  |  | $\mathrm{N}_{\mathrm{P}}$ | to-inf |
| Valency type | sub |  | obj | vb-to-inf |
| Clause structure <br> (based on Quirk et al <br> 1985) | Subject | Verb | Direct object |  |
| 2) | I | do not <br> consider | that | any precedent is <br> being set. |
| CCED |  | V | that |  |
| VDE | sub |  | (that)-CL |  |
| Valency type |  | obj-that |  |  |

Tab. 8.2: Example sentence analysis comparing the CCED, VDE and valency complement types

It is probably a futile attempt to try to distinguish between whether the meaning of CONSIDER in sentences 1 and 2 is THINK or REGARD. It has to be noted here that the paraphrases do not represent direct synonyms. While exchanging 'considers' into either 'thinks' or 'regards' in sentence 1 is possible, this is not possible for 'consider' for 'regard' in sentence 2 since the verb REGARD is not followed by a that-clause. In order to replace 'consider' in sentence 2 with 'regard' a change in sentence structure would be required, as for example 'I do not regard this to be a precedent'.

In my opinion, both the CCED and the VDE suppress important syntactic features of clause structure in favour of, as I would term it, a lexical surface structure based on word-class realisation forms. When considering user needs in dictionary compilation the starting point for meaning description and syntactic information such as complementation patterns should be the clause as the smallest unit of analysis (Zöfgen 1991: 2898; Al-Kasimi 1977: 49), since comparisons regarding similarities and differences between the use of words in the same language, and between words in different languages can only be drawn in the context of the whole clause.

| 3) | All the members of the WTO | consider- ed | this <br> document | to be | a sound basis for moving forward. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Valency | sub |  | obj | vb-to-inf |  |
| CCED |  | V | n | to-inf |  |
| VDE |  |  | $+\mathrm{N}_{\mathrm{P}}$ | +to-INF |  |
| 3-G) | $\begin{aligned} & \hline \text { Dieser } \\ & \text { Entwurf } \end{aligned}$ | wurde | von allen WTO-Mitgliedern | als akzeptable Arbeitsgrundlage | bezeichnet. |
| 3a-G (active) | $\begin{aligned} & \text { Alle } \\ & \text { WTO-Mit- } \\ & \text { Glieder } \end{aligned}$ | bezeichneten | diesen <br> Entwurf | als | akzeptable <br> Arbeitsgundlage. |
| Valency | sub |  | obj | nom-als |  |
| CCED |  | V | n | als n |  |
| VDE |  |  | $+\mathrm{N}_{\mathrm{P}}$ | +als N |  |

Tab. 8.3: Contrastive analysis based on the CCED, VDE and valency complement types

As can be seen in table 8.3, the English sentence (3) occurs in the translation as a passive structure ( $3-G$ ), which is transferred into an active clause (3a-G) for the analysis. The CCED and VDE analysis is almost identical, but the VDE additionally indicates that the complement following the verb is the object by adding the subscript ' $P$ ', which specifies that the noun complement can occur as subject of a finite passive clause. I believe that the analysis by valency complements based on their function in the clause has the advantage of showing the interaction between individual verb-specific lexis and the wider syntactic context of clause structure, i.e. differences and similarities in the local grammar of words and sentence structure are more easily noted.

What lies at the heart of this discussion is the essential 'dictionary-grammar' problem. Syntactic categories are an important part of dictionary entries as they show the dictionary user the correct or common use of a word (Karl 1991: 2827). However, the inclusion of syntactic and grammatical information in a dictionary requires two decisions by the lexicographer. The first is to decide which syntactic information belongs to the lexicon and should therefore be included in a dictionary and what belongs to the general grammar of a language and should therefore be dealt with in a general grammar book. Since there is no
clear-cut point between lexis and grammar, but the two are overlapping concepts, this is a difficult task and largely based on the judgment of the individual lexicographer.

The second decision the lexicographer has to make is to decide on how to present the grammatical information. Grammatical information requires a metalanguage, i.e. syntactic definitions which need to be understood by the users of dictionaries (Clear 1996: 271). Therefore, Svensén (2009: 146) notes that "the grammatical codes must be unambiguous and, preferably, self-explanatory". But this can pose problems in bilingual lexicography as the chosen codes need to be able to describe two languages in a way that shows the differences and similarities in the use of words and the use of their equivalents in another language and at the same time the syntactic codes need to be 'unambiguous' and 'self-explanatory' to native users of either language. The part-of-speech category codes as used in the CCDE and VDE are likely to be understandable by most people, irrespective of their native language. However, whilst "certain syntactic information can be conveyed by specifying the part-of-speech membership of the lemma, in comparison, however, information about constructions, i.e. valency sentence patterns, carries a higher degree of precision with regard to the syntagmatic properties of the lemma" (Svensén 2009: 141), as seen in the analysis in table 8.3.

A representation of the valency complements by case, which is the preferred valency categorisation method in monolingual German language analysis, seems ineffective for English as morphemes indicating the case are missing (cf. section 4.4.1, p 88). The approach suggested here sees case formation as part of the general grammar of German which should be dealt with in a grammar book, but the structural information based on the function of the complement as a distinguishing element in a contrastive comparison of English and German.

### 8.2.2 VALBU (E-VALBU)

The main objective of the VALBU project at the Mannheim Institute for German Language was the compilation of a monolingual dictionary of German verb valency. The entries were chosen based on the requirements for the certificate 'German as a Foreign Language' at the federal Goethe Institute (Schumacher et al. 2004: 7), and are based on the monolingual German corpus DeReKo, which is also hosted by the Mannheim Institute for German Language and is probably the largest corpus of written German available at the present time (Schneider 2008: 34).

In contrast to most dictionaries, VALBU distinguishes the verb entries, i.e. different main lemmas, based on the verb phrase. As a result, verbs that can, for example, occur with a correlate 'es' ('it') or a reflexive pronoun form a separate entry (Schumacher et al. 2004: 21). Based on this principle, the verb ÜBERLEGEN, for example, has two entries:

ÜBERLEGEN
ÜBERLEGEN (sich) ${ }^{47}$.
This is a purely syntactic decision, and not based on meaning or sense groupings. These are made on the second level of categorisation between the main entries, as seen below where the two entries of ÜBERLEGEN are each divided into, in this case, two meaning groupings.

| 1 überlegen | nachdenken <br> 2 überlegen |
| :--- | :--- |
| etwas erwägen |  |
| 2 (sich [D]) überlegen | sich mit etwas gedanklich auseinander setzen oder intensiv über etwas nachdenken |
| 2 (sich [D]) überlegen | durch intensives Nachdenken zu etwas gelangen |

There are advantages and disadvantages to this form of presentation. The main advantage has to be that attention is drawn to frequent usage structures of verbs. A disadvantage could be seen that meaning or sense groupings become unclear, as the first distinction is based on syntax and the second on meaning. For example, as a native speaker I would argue that the

[^27]given meaning identification 1 for both entries ÜBERLEGEN and ÜBERLEGEN (sich) is identical, and since the reflexive pronoun is not obligatory it seems difficult to justify separate entries.

Figure 8.4 shows a section of the entry NACHDENKEN in VALBU (Schumacher et al. 2004: 562). Since NACHDENKEN does not occur with the correlate 'es' (it'), nor with a reflexive pronoun, no further distinction is made on the first level, i.e. NACHDENKEN has only one main entry in VALBU. On the meaning level, two meanings are identified which both occur
'nachdenken denkt nach - dachte nach - hat nachgedacht
nachdenken 1 über sich mit tetwas gedanklich beschăftigen nachdenken 2 über die Realisierung von etwas erwägen

## $S B P$ nachdenken 1 über NomE PräpE

PräpE: über +A : dasjenige, mit dem sich jemand gedanklich beschäftigt: keine Restr.
SE mit fak. Korrelat darüber: Sachverhalt
W. BED nachdenken 2 über NomE PräpE; PräpE: über + A; PräpSE mit obl. Korrelat darüber
Fig. 8.4: NACHDENKEN in VALBU
(Schumacher et al. 2004: 562)
with the valency sentence pattern <NomE PräpE>, indicating that the verb occurs with a nominative and a prepositional complement. The latter comprises of the preposition 'über' followed by a noun phrase in the accusative case (PräpE: über +A ).

At first glance it appears as if VALBU entries are less detailed than the two monolingual English dictionaries, CCDE and VDE, discussed earlier. However, this is not the case. For example, the note "PräpSE mit obl. Korrelat darüber" in meaning group 2 (figure 8.4) indicates that variations of the prepositional complement in the form of clause complements with the correlate 'darüber' are possible. These variations are explained in the small text of the entry (figure 8.5). As can be seen, possible clause compliments are 'dass-S' (that-clause), 'Inf' (infinite-clause), 'ob-Frag' (wh-clause) and 'Hpts' (complete sentence).
> dass-S: (23) Habt ihr [mal] darüber nachgedacht, dass ihr euch ein Haus kaufen könntet?
> Inf+: (24) [Auch beruflich] denkt so mancher darüber nach, sich selbstständig zu machen. (MM, 31.1.86, S. 9) ob-Frag: (25) Der Student will [erst nach dem Diplom] darüber nachdenken, ob er mit einer Dissertatión beginnt. Hpts: (26) [Immer öfter] denkt er darüber nach, sollte er sich vielleicht doch einen anderen Job suchen?

Fig. 8.5: Excerpt of NACHDENKEN in VALBU (ibid. p 563)

VALBU entries thus differ in the categorisation of valency complements used in this study which remain closer to the surface structure and treat correlates as part of the valency pattern. For example, the VALBU valency sentence patterns discussed above would be shown in this thesis as <sub darüber vb-dass>, <sub darüber vb-zu-inł, <sub darüber vb$w$. This study also does not distinguish 'Hpts' complements, but they are classified according to their function. Therefore the example sentence for 'Hpts' (26) in figure 8.5 would be analysed in this thesis as <sub darüber vb-w>. As with any analysis, alternatives are possible.

It is noticeable when comparing the VALBU entries with those of the CCDE and VDE that word senses are distinguished differently. In the CCDE and the VDE different meanings are often attributed to different complementation patterns, whereas this is not the case in VALBU where the different word meanings attributed to an entry are generally not related to different valency complements or valency sentence patterns. This observation demonstrates, in my opinion, that monolingual meaning interpretation is not only subjective, but may also be influenced by the lexicographers' intentions, i.e. the lexicographers working on the CCED and VDE were more influenced by syntax when distinguishing senses.

Furthermore, the comparison of monolingual English and German dictionaries, showing syntactic information on the local grammar of words, illustrates that the principles and methods for analysis and representation of the syntactic elements differ considerably between the two languages. The challenge in the development of a bilingual English-German/German-English dictionary is to find syntactic categories which are suitable to describe both languages adequately and can be understood by the dictionary users.

### 8.3 Bilingual Dictionary Entries for the Verb CONSIDER

Kromannn (1989:58) notes three key disadvantages of monolingual learner dictionaries:
$>$ they do not offer the user direct access to equivalents in the other language
$>$ definitions and explanations are in a foreign language
> lexical and syntactical information with regard to the second language is not included.
This statement implies that these disadvantages do not occur with bilingual dictionaries.
Whether this is true will be investigated in this section.
consider [kən'sidər, AM -ə] vt (3) (contemplate) sto ~ sth über etw akk nachdenken, sich dat etw akk überlegen; well, I'll consider it ich lasse es mir durch den Kopf gehen; sto $\sim$ sb/sth for sth jdn/ etw für etw akk in Erwägung ziehen; to be ~ed for a job für einen Job in Erwägung gezogen werden; sto $\sim$ doing sth daran denken $[o$ sich akk mit dem Gedanken tragen], etw $z u$ tun; sto $\sim$ how/what/ where/why ... darüber nachdenken ( $o$ sich dal überlegenj, wie/was/wo/warum ...
(2) (look at) ato $\sim$ sb/sth jdn/etw betrachten; ( think of) ato ~ sth/sb an etw/jdn denken; (take into account) sto ~ sth etw bedenken (o berücksichtigen]; you've got to ~ the time factorSie dürfen den Zeitfaktor nicht aus dem Auge verlieren; all things ~ed alles in allem
(3) (regard as) ato ~ sb/sth [as [or to be]] sth jdn/ etw für etw akk halten, jdn/etw als etw akk betrach. ten; I ~ it a compliment/ an honour/ an insuli ... ich betrachte es als Kompliment/Ehre/Beleidigung...; ~ yourself at home fühlen Sie sich wie zu Hause; ~ yourself sacked! betrachten Sie sich als entlassen!; do you ~ her trustworthy? denkst du, man kann ihr vertrauen?; to $\sim$ sb a genius jdn für ein Genie halten; ~ it done schon erledigt! fam; to ~ oneself lucky that ... sich akk glücklich schät zen können, dass ...; to be ~ed [to be] sth als etw gelten; ato $\sim$ that.. denken $[0$ der Meinung sein $]$, dass.
Fig. 8.6: CONSIDER in Comprehensive German Dictionary (CK), Cambridge Klett 2002

Consider /kən'side(r)/ v.t. 1 (look at) betrachten; (think about) ~ sth. an etw. (Akk.) denken (2) (weigh merits of) denken an (+ Akk); he's ~ing emigrating er denkt daran, auszuwandern [3) (reflect) sich (Dat) überlegen 4 (regard as) halten für; I ~ him [to be or as] a swindler ich halte ihn für einen Betrüger [5) (allow for) berücksichtigen; ~ other people's feelings auf die Gefühle anderer Rücksicht nehmen; all things ~ed alles in allem

Fig. 8.7: CONSIDER in Concise Oxford Duden German Dictionary (OU), Oxford University Press 2005
consider [kən'sidə] VT a (= reflect upon) plan, idea, offer sich (dat) überlegen, nachdenken über (+acc); possibilities sich (dat) überlegen
b (= have in mind) in Erwägung ziehen; I'm ~ing going abroad ich spiele mit dem Gedanken, ins Ausland zu gehen, ich erwäge einen Auslandsaufenthalt (geh)
c (= entertain) in Betracht ziehen; I won't even ~ the idea of ... der Gedanke, zu ..., kommt für mich überhaupt nicht in Betracht; I won't even ~ it! ich denke nicht daran!; I'm sure he would never ~ doing anything criminal ich bin überzeugt, es käme ihm nie in den Sinn, etwas Kriminelles zu tun
d (= think of) denken an ( $+a c c$ ); ~ my position überlegen Sie sich meine Lage; ~ this case, for example nehmen Sie zum Beispiel diesen Fall; ~ how he must have felt überlegen Sie sich, wie ihm zumute or zu Mute gewesen sein muss; have you ~ed going by train? haben Sie daran gedacht, mit dem Zug zu fahren?
e (= take into account) denken an (+acc); cost, difficulties, dangers also, facts bedenken, berücksichtigen; person, feelings also Rücksicht nehmen auf ( $+a c c$ ); when one $\sim \mathbf{s}$ that ... wenn man bedenkt, dass ...; all things ~ed alles in allem
f (= regard as, deem) betrachten als; person halten für; to $\sim$ sb to be or as ... jdn als ... betrachten, jdn für ... halten; to ~ oneself lucky/honoured sich glücklich schätzen/geehrt fühlen; ~ it (as) done! schon so gut wie geschehen!
s (= look at) (eingehend) betrachten
Fig. 8.8: CONSIDER in Langenscheidt Collins Großes Studienwörterbuch Englisch (HC),
HarperCollins 2008

Figures 8.6 to 8.8 show the entries for the verb CONSIDER in three different EnglishGerman bilingual dictionaries: the Comprehensive German Dictionary (2002) published by Cambridge Klett (CK, figure 8.6), the Concise Oxford Duden German Dictionary (2005) by

Oxford University Press (OU, figure 8.7) and the Langenscheidt Collins Großes Studienwörterbuch (2008) by HarperCollins (HC, figure 8.8).

At first glance the three different examples appear to demonstrate that there is little unity amongst the various publishers. Similar to monolingual dictionaries, the entries show different numbers of key meanings in English and their respective translation equivalents (TEs). For example, CK (figure 8.6) distinguishes three meanings CONTEMPLATE, LOOK AT and REGARD AS, OU (figure 8.7) shows the five senses LOOK AT, WEIGH MERITS OF, REFLECT, REGARD AS and ALLOW FOR, and HC (figure 8.8) identifies seven meanings REFLECT UPON, HAVE IN MIND, ENTERTAIN, THINK OF, TAKE INTO ACCOUNT, REGARD AS and LOOK AT. It is interesting that these entries are quite different to the meaning or sense definitions in monolingual dictionaries, where a paraphrase in sentence form, rather than a word or phrase is preferred. Table 8.4 shows a comparison with three monolingual learners' dictionaries by order of entry: the Oxford Advanced Learner's Dictionary (2005), OU-mono, the Longman Dictionary of Contemporary English (2003), LMmono, and the Collins Cobuild English Dictionary (1995), CC-mono. The same paraphrases of the senses are highlighted in the same colour.

|  | CK | OU | HC | OU-mono | LM-mono | CC-mono |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | contem- <br> plate | look at | reflect <br> upon | to think about sth <br> carefully | to think about sth <br> carefully | to have the opinion <br> that sb/sth is <br> this/so |
| 2 | look at | weigh <br> merits of | have in <br> mind | to think of sb/sth <br> in a particular way | to think of so/sth <br> in a particular way <br> to think about so <br> or their feelings | to think about sth <br> carefully |
| 3 | regard as | reflect | entertain | to think about sth |  |  |
| sth |  |  |  |  |  |  |$|$| ef doing |
| :--- |
| 4 |

Tab. 8.4: Comparison of paraphrases for meanings of CONSIDER in mono- and bilingual dictionaries

Of course, lexicographers always have to decide on how extensively they deal with an entry due to the limited space available in printed media. Ideally, the most frequent sense is the first entry, but even in this there is disagreement amongst the publishers.

Two senses of CONSIDER, namely LOOK AT and REGARD AS, occur in all three bilingual dictionaries. However, these two meanings appear to have the same TEs (table 8.5), which raises the question of why are they distinguished in the first place when there is no meaning difference in the German translations? To take the question one step further: Are English paraphrases necessary at all? Do not, or should not, the TEs take over the role of paraphrases?

|  | CK | OU | HC |
| :--- | :--- | :--- | :--- |
| REGARD AS | HALTEN <br> BETRACHTEN | HALTEN | BETRACHTEN <br> HALTEN |
| LOOK AT | BETRACHTEN | BETRACHTEN | BETRACHTEN |

Tab. 8.5: TEs of the senses REGARD AS and LOOK AT of the verb CONSIDER

Within this discussion it is important to keep in mind the reasons why somebody would use a bilingual dictionary. There are two different users: First, a speaker of the source language who wants to know the meaning of a word in the target language, and second, a target language speaker who came across the word in a text and wants find the equivalent in his own language. The needs of each user are similar, although with different emphasis: the first is most likely to be interested in syntactic and contextual information on how to use the word appropriately. The second is probably only interested in syntactic and contextual information in as much as it helps to indicate the correct identification of the equivalent in the native language.

The syntactic information given in the above dictionary examples is relatively sparse and focuses on phrases instead of giving guidance on how to apply the word in a sentence. For example, the user learns that CONSIDER is a transitive verb. Does that mean the TEs will
also be transitive verbs? Furthermore, to take a specific example sentence (4), the user is told that in the TE 'etwas überlegen' 'etwas', which is a place holder for a noun phrase, is in the accusative case. Here the accusative represents the object. However, 'something' in the phrase 'to consider something' also functions as place holder for a noun phrase functioning as the object. Therefore 'something' is also in the accusative although English morphology does not show it.


As a result, example sentences 4-G and 4 show the same sentence structure in English and German. However, for the TE 'jemanden/etwas für etwas halten', CK only points the second 'etwas' out as being in the accusative case. In fact, both occurrences of 'etwas' are in the accusative case, the first functioning as object and the second dependent on the particle 'für'. Therefore, as shown in sentences 5-G and 5, the German and the English sentence structures differ.

| 5-G) Die Institutionen der EU | halten |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| subject | verb | die Bürger | für | Gegner. |
|  |  | object <br> = accusative | particle | accusative <br> (same case as object) |
| 5) The institutions of the EU | consider | citizens | to be | opponents. |
| subject | verb | object | infinite | object of 'BE' |
|  |  | = accusative | clause | = nominative |

Looking at the information given in bilingual dictionaries there is a strong indication that these presuppose knowledge of the similarities and differences between languages (Noël 1996: 105). Based on the examples and the syntactic information given in the three dictionary entries for the verb CONSIDER, it is possible to devise complementation patterns for CONSIDER based on word class. These are shown in table 8.6 with the TEs attributed to them.

| Pattern <br> TE | V + Noun |  |  | V + Noun + <br> [as / to be] + <br> Noun |  |  | $\mathrm{V}+\mathrm{V}$-ing |  |  | $\mathrm{V}+$ that |  |  | $\mathrm{V}+\text { how / }$ <br> what/ where / why |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | CK | HC | OU | CK | HC | OU | CK | HC | OU | CK | HC | OU | CK | HC | OU |
| NACHDENKEN über |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| sich ÜBERLEGEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DENKEN an |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DENKEN dass |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| HALTEN für |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BETRACHTEN als |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| mit dem Gedanken tragen / spielen |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ERWÄGEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| der Meinung sein |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| BEDENKEN dass |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Tab. 8.6: Comparison of TEs regarding syntactic patterns of CONSIDER in three different dictionaries

The TEs seem to be dependent on the complementation pattern of CONSIDER:

```
`CONSIDER + noun'
`CONSIDER + noun + [as/to be] + noun'
`CONSIDER + verb-ing'
'CONSIDER + that-clause'
`CONSIDER + wh-clause'
```

> NACHDENKEN, ÜBERLEGEN and DENKEN
$>$ HALTEN and BETRACHTEN
> DENKEN and ERWÄGEN
> DENKEN, ‘der Meinung sein’ and BEDENKEN
> NACHDENKEN and ÜBERLEGEN

Furthermore, based on these complementation patterns it is possible to identify the syntactic functions in English. For example, the noun following a verb functions as object in the canonical clause, and the object represents the accusative case. Hence, the TEs for 'CONSIDER + acc' are 'NACHDENKEN ÜBER + acc' and 'ÜBERLEGEN + acc'. However, since English speakers are generally unfamiliar with the concept of case the suggested approach in this thesis is therefore to use the label 'object'. Thus, the above patterns identified in the dictionary entries represent the following valency sentence patterns of CONSIDER:
‘CONSIDER + noun'
‘CONSIDER + noun + [as/to be] + noun'
‘CONSIDER + verb-ing'
'CONSIDER + that-clause’
'CONSIDER + wh-clause'
<sub obj>
<sub obj nom>
<sub obj nom-as>
<sub obj vb-to-be-nom>
<sub obj-ing>
<sub obj-that>
<sub obj-wh>

These valency patterns are also suitable for German. As a result of using this approach it becomes easier to identify similarities and differences of the use of words between two languages.

Regarding the TEs, the disagreement continues. While CK and HC show NACHDENKEN and ÜBERLEGEN in first position, OU gives BETRACHTEN and DENKEN. Giving two TEs for the same meaning of CONSIDER, interestingly, also seems to indicate that there is no difference in meaning in German between, for example, NACHDENKEN and ÜBERLEGEN, i.e. they are synonymous and thus interchangeable in a sentence. Furthermore, the order of the dictionary entries does not match the translation equivalent frequencies in EuroParl (cf. section 7.2.2, p 225). The analysis for the valency patterns of CONSIDER and their respective translation equivalents has shown that 'HALTEN (für)', 'BETRACHTEN (als)' and 'der Ansicht / Meinung SEIN' are the most frequent TEs.

The ParaConc function 'hot words', which is based on word-forms and not lemmas, was used to identify the most frequent TEs for the word-forms of CONSIDER (table 8.7).

| consider | considered | considering | considers |
| :--- | :--- | :--- | :--- |
| überlegen | angesehen | erwägt | hält |
| erwägen | betrachtet | erwägen | erachtet |
| nachzudenken | erwogen | prüft | vertritt (die Auffassung) |

Tab. 8.7: Translation 'hot words' for word-forms of CONSIDER

Interestingly, this search shows the word-forms 'überlegen' and 'nachdenken', which take the highest ranks in the dictionary entries, as the strongest translation equivalents for the wordform 'consider', but they are much less frequent within the other word-forms. Therefore, I conducted a search for the German lemmas for each word-form of CONSIDER (table 8.8).

|  | CONSIDER | consider | considered | considering | considers |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Total | 14,224 | 7,782 | 3,534 | 1,555 | 1,353 |
| HALTEN | 1,709 | 1,246 | 191 | 50 | 222 |
| BETRACHTEN | 996 | 443 | 406 | 49 | 98 |
| ÜBERLEGEN | 337 | 254 | 41 | 39 | 3 |
| NACHDENKEN | 476 | 374 | 50 | 51 | 1 |
| ERWÄGEN | 259 | 120 | 66 | 68 | 5 |
| DENKEN | 263 | 183 | 37 | 39 | 4 |
| Erwägung | 242 | 152 | 51 | 32 | 7 |
| Meinung | 621 | 406 | 90 | 26 | 99 |
| Betracht | 240 | 143 | 66 | 25 | 6 |
| Ansicht | 737 | 364 | 116 | 20 | 237 |
|  | $41.34 \%$ | $47.35 \%$ | $31.52 \%$ | $25.66 \%$ | $50.41 \%$ |

Tab. 8.8: Total frequencies for popular TEs by word-form of CONSIDER

The difference to the 'hot words' search is notable. With the exception of the word-form 'considering' the most frequent choices for TEs are the lemmas HALTEN, BETRACHTEN and 'der Meinung / Ansicht SEIN'.

In summary, it is notable that the syntactic information given in the observed bilingual dictionaries is not suitable to identify differences of the use of words between languages. Moreover, the relative importance of key translations is not reflected in multilingual dictionaries. Therefore, it can be stated that dictionary entries are not as helpful as they could be for German learners of English. Zöfgen (1991: 2888) already mentioned 20 years ago that "research in various countries has confirmed that a vast majority of foreign language learners tend to turn to the bilingual rather than the monolingual dictionary" and noted that based on these findings "it is surprising that in the saturated market of monolingual dictionaries bilingual dictionaries do not receive greater attention". It seems to me as if this situation has hardly changed.

### 8.4 Suggested Specimen Dictionary Entries for CONSIDER

From the comparison between the monolingual dictionaries and the bilingual EnglishGerman dictionaries it can be concluded that monolingual dictionaries provide more syntactic information than bilingual dictionaries. However, the syntactic information in monolingual dictionaries is presented in a way which is best suited to the language they convey, but less
suitable for comparisons of the syntactic sentence structure or the local grammar of words with other languages. The bilingual dictionaries also show syntactic information, not explicitly, but in the form of example phrases. Bilingual dictionaries therefore presuppose that the user can 'translate' these example phrases into syntactic sentence structures which can be compared with the given equivalents in the other language. Based on the belief that second language learning is not independent from knowledge of the first language, such comparisons seem to be worth considering and aiming for in dictionary compilation. In the following sections two dictionary entries, one for an English-German bilingual dictionary entry for the verb CONSIDER and one for a monolingual English thesaurus dictionary aimed at German users, for the verbs CONSIDER, BELIEVE, FEEL and THINK will be suggested.

### 8.4.1 Bilingual Dictionary Entry

The order or display of the entries is an important decision to make in dictionary compilation. Showing both valency sentence patterns and TEs raises the question: Should the entries be ordered by pattern frequency, i.e. the most frequent pattern of CONSIDER <sub obj> in first position, or should the entries be based on the frequency of translation equivalents, i.e. the most frequent TE, 'HALTEN für', in first position? For a user oriented dictionary, consideration would be given to the native language of the dictionary user and the purpose of use, e.g. reception or production of foreign text, or translation from or into the foreign language (Svensén 2009: 14-15). For example, considering the receptive needs of a German learner of English, the preferred option would probably be placing the most frequent pattern of CONSIDER first as he/she will come across this pattern more frequently when reading texts. However, for an English learner of German who wants to translate an English text into German, placing the most frequent TEs first would be the preferred option as he/she is more likely to be interested in natural-sounding language production. However, due to the economic pressure on publishers there is a conflict between reasonable consumer price and
profitability of a product, so most dictionaries will try to combine as many user needs as possible within one publication.

The following suggestion for a bilingual specimen dictionary entry is that the entries should be according to the frequency of the TEs and not according to pattern frequency. The reasoning for this decision is that I feel that the aim of bilingual dictionaries is to give a comparison of two languages: first on the meaning level, i.e. the TEs, and second on the syntactic level, i.e. showing syntactic similarities and differences between the original and the TE.

Tables 8.9 to 8.12 represent the relevant key findings of the case study (chapters 6 and 7 ) for the compilation of a dictionary, but this time based on the investigation of 200 randomly chosen concordance lines for each of the investigated verbs CONSIDER, BELIEVE, FEEL and THINK (TEs with a single occurrence are not included) from the EuroParl corpus.


Tab. 8.9: Frequencies of valency patterns and TEs of CONSIDER (200 concordance lines)

As can be seen in table 8.9 the most frequent pattern of CONSIDER <sub obj> is represented by a relatively large number of TEs, the most frequent ones being BERÜCKSICHTIGEN, PRÜFEN, 'in Betracht ZIEHEN, DENKEN (an), ERWÄGEN,

BEHANDLEN and BEFASSEN (mit), but the most frequent TEs HALTEN (für) and BETRACHTEN (als) do not occur with this pattern at all. These most frequent TEs show other pattern preferences, namely with a nominal complement with or without an infinitive clause <sub obj nom / adj>, <sub obj vb-to-be-nom / adj> or with a correlate 'it'-structure <sub it nom / adj vb-that>, <sub it nom / adj vb-to-int>.

This is different for the verbs BELIEVE, FEEL and THINK. These three verbs show a very strong preference for just one pattern <sub obj-that> which is also represented by a number of different TEs, but these are also the most frequent TEs (tables 8.10 to 8.12).

| BELIEVE | $\begin{aligned} & \text { c} \\ & 0 \\ & \frac{0}{00} \\ & \frac{\pi}{00} \end{aligned}$ |  | $\begin{aligned} & \stackrel{y}{0} \\ & \stackrel{y}{2} \\ & \frac{5}{y} \\ & \frac{2}{n} \end{aligned}$ |  | $\begin{gathered} \stackrel{\rightharpoonup}{\mathrm{v}} \\ \stackrel{\text { v}}{\text { d }} \end{gathered}$ |  |  |  |  |  |  |  | $\underset{c}{5}$ |  |  |  |  | Frequency pattern |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| sub obj | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 7 |
| sub obj-that | 51 | 16 | 15 | 15 | 13 | 8 | 8 | 7 | 6 | 4 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 183 |
| sub prp-in | 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 6 |
| sub obj vb-to-be-nom |  |  | 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| sub obj vb-to-be-adj |  |  |  |  |  |  |  |  |  |  |  | 1 |  |  |  |  |  | 2 |
| sub it adj vb-that |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1 |
| Frequency $T E$ | 59 | 16 | 16 | 15 | 13 | 8 | 8 | 7 | 6 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 200 |

Tab. 8.10: Frequencies of valency patterns and TEs of BELIEVE (200 concordance lines)


Tab. 8.11: Frequencies of valency patterns and TEs of FEEL (200 concordance lines)


Tab. 8.12: Frequencies of valency patterns and TEs of THINK (200 concordance lines)

The 200 analysed lines from EuroParl do not show all the patterns for the words (cf. tables 6.6 to 6.9 , pp 212-215, which show a comparison of pattern frequencies between different corpora). This indicates that some patterns are rare, but it also raises the question whether these valency patterns should be represented in a dictionary entry. With online dictionaries, where space is not an issue, a comprehensive representation of CONSIDER and its TEs should be the preferred option. With printed dictionaries, however, where space is of concern, a decision regarding their representation has to be made. The following specimen dictionary entry does not include these infrequent patterns. A decision on how many valency patterns and TEs to include in a dictionary should generally be based on users' knowledge and needs, i.e. beginner dictionaries should include only the most frequent patterns and TEs, while advanced learner dictionaries should also include rarer occurrences. The purpose of the specimen entry is to show how syntactic information, based on corpus evidence, can be used in bilingual dictionaries to show differences between the choice of equivalents and the sentence structure in two languages.

The above tables 8.9 to 8.12 also indicate that patterns and a chosen TE tend to coincide, i.e. the valency sentence patterns have their preferred TE(s). What tables 8.9 to 8.12 do not show as clearly relates to the issue of the relative importance of the TEs. For example, the overview of all the investigated TEs of CONSIDER (cf. table 7.12, p 243) shows that ÜBERLEGEN occurs in $62 \%$ ( 31 of the 50 analysed concordance lines) of all occurrences for the pattern <sub obj-wh> of CONSIDER, followed by PRÜFEN with $34 \%$ (17 of the 50
analysed concordance lines). Just looking at these figures it would appear that ÜBERLEGEN is the preferred equivalent for CONSIDER with the valency pattern <sub obj-wh> as in the following example 6 :
6) We considered whether we should conduct a joint mission.

6-G) Wir haben überlegt, ob wir nicht gemeinsam eine Mission durchführen sollten.

However, taking into account the total occurrences as TE, which are 347 for ÜBERLEGEN and 774 for PRÜFEN, it is expected that ÜBERLEGEN will occur 215 times ( $62 \%$ of 347 ) in total as TE of the pattern <sub obj-wh> in the EuroParl corpus, while PRÜFEN is expected to occur 263 times ( $35 \%$ of 774 ). Therefore, PRÜFEN appears to be the preferred TE of CONSIDER with the pattern <sub obj-wh>.

Figure 8.9 shows the English-German bilingual specimen dictionary entries for the verb CONSIDER. The German equivalents are shown in order of their frequency, but, as can be seen, were combined into one entry where appropriate. Displaying the valency sentence pattern allows users to quickly identify the sentence structure, and an entry can relatively easily be searched for its patterns and its TEs. Square brackets indicate that the complement is facultative.

The specimen dictionary (figure 8.9) entry for CONSIDER distinguishes between eight German equivalent senses. For each entry the valency sentence pattern is shown in English and contrasted with the German pattern. The valency sentence patterns are ordered by frequency, i.e. the first pattern shown for CONSIDER is the pattern with which the TE occurs most frequently. Notes regarding use or frequency are included were necessary. For example, it is pointed out that 'HALTEN für' (entry 1) typically occurs as TE in active clauses of CONSIDER, while 'BETRACHTEN als' and 'ANSEHEN als' (entries 2 and 2a) are the preferred TEs when CONSIDER is in the passive; or it is noted that valency patterns are rare as is the case for the pattern <sub obj prp-for> for CONSIDER.

CONSIDER considers, considered, considering
<sub obj [vb-to-be-] adj / nom>
We consider the risk to be relatively low. / I consider this development highly questionable.
I consider self-regulation instruments to be an important addition to a legal framework. /
Some consider the 20th century a century of war and bloodshed.
<sub it adj/ nom vb-to-inf>; < sub it adj/ nom vb-that>
We consider it appropriate to extend the deadlines proposed. / We consider it unacceptable to use religion as excuses for acts of violence.

We consider it a bad idea to take the funding from the farming sector.
I consider it obvious that Article 31 does not supply the relevant legal basis. / Passengers would often consider it more important that a solution be found than compensation be
paid.
For that reason we actually consider it a good idea that a new policy is being constructed
I consider it a good idea, for example, to increase aid to associations from $2 \%$ to $5 \%$.
consider it self-evident that Parliament should be fully involved. / I consider it a failure that the financial contribution is being reduced.

## <sub vb-that>

We consider that the level proposed is too low. / We consider that a fair sharing of the burden is an important aspect of asylum policy.
NOTE: valency complement 'vb-to-inf' very rare for 'considering'; CONSIDER h is considered essential because ... / Man hält die Anpassung für erforderlich, weil ..

1) HALTEN FÜR hält, hielt, hat gehalten
<sub obj adj/ nom>
Wir halten das Risiko für relativ gering. / Ich halte diese Entwicklung vielmehr für höchst bedenklich.
Ich halte Selbstkontrolleinrichtungen für eine wichtige Ergänzung eines Rechtsrahmens. / Einige halten das 20. Jahrhundert für ein Jahrhundert der Kriege und des Blutver-giessens. <sub es adj / nom vb-zu-inf / vb-dass>
Unsere Fraktion hält es für zweckmässig, die vorgeschlagenen Fristen auszudehnen. / Wir halten es für unannehmbar, dass Religion als Vorwand für Gewalttaten herhalten muss.
Wir halten es für eine schlechte Idee, dass die Finanzierung aus dem Landwirtschaftssektor erfolgen soll.
Ich halte es für einleuchtend, dass Artikel 31 keine gestetzliche Grundlage bietet. /
Reisende würden es in vielen Fällen für wichtiger halten, eine Lösung zu finden, als einen Schadensersatz zu bekommen
Deshalb halten wir es im Grunde genommen für richtig, dass eine neue Politik auf den
Weg gebracht wird. / Ich halte es zum Beispiel für sinnvoll, die Zuschüsse an
Erzeugergemeinschaften von $2 \%$ auf $5 \%$ zu erhöhen.

## SOMETIMES ALSO: <sub obj adj / nom>

Ich halte eine umfassende Beteiligung des Parlaments für selbstverständlich. / Ich halte die Verringerung des Finanzrahmens für ein Fiasko

## <sub obj adj / nom>

Wir halten den vorgeschlagenen Wert für zu gering. / Wir halten eine faire Lastenverteilung für eine wichtige Aufgabe der Asylpolitik.

## <sub obj [vb-to-be-] nom / adj>

In many countries women are not even considered to be citizens.
Cloning was considered impossible when the patent was filed.

## <sub obj nom-as / adj-as>

What we really wanted was for you to consider us as your ally. / Despite everything, we should not allow ourselves to consider the military coup as a possible alternative to the incompetence and corruption of an elected government.
Should we not consider the OECD agreement as null and void if the United States do not ratify it by the end of the year? / The ionization of food must even be considered as beneficial to the consumer.

## <sub obj>

We cannot accept the idea that sport should be considered in its economic dimension
alone.
ever in passive, if it is then HALTEN fur often in active as for example: Adaptation

## 2) BETRACHTEN ALS betrachtet, betrachtete, hat betrachtet ; ANSEHEN ALS

## sieht an, sah an, hat angesehen

## <sub obj nom / adj>

Die Frau wird in vielen Ländern noch nicht einmal als Staatsbürgerin betrachtet.
Klonen wurde zum Zeitpunkt der Anmeldung des Patents als unmöglich angesehen.
<sub obj nom / adj>
Wir wollten, dass Sie uns als Ihren wahren Verbündeten betrachten. / Trotz allem darf uns Unfähigkeit und Korruptheit einer gewählten Regierung nicht dazu bringen, den Militärputsch als eine mögliche Alternative anzusehen.
Sollte das OECD-Abkommen nicht als ungültig betrachtet werden, wenn es von den USA nicht bis Ende des Jahres ratifiziert wird? / Die Behandlung von Lebensmitteln durch ionisierende Strahlen muss sogar als vorteilhaft für den Verbraucher angeshen werden
2a) BETRACHTEN betrachtet, betrachtete, hat betrachtet <sub obj>
Wir können nicht akzeptieren, dass der Sport lediglich in seiner wirtschaftlichen Dimension betrachtet wird.
NOTE: CONSIDER often in passive for BETRACHTEN als, ANSEHEN als and BETRACHTEN
3) NACHDENKEN UBER denkt nach, dachte nach, hat nachgedacht
<sub obj>
We must carefully consider the balance of power
<sub obj>
Man sollte gut über das Gewaltengleichgewicht nachdenken.
Often with correlate 'DARÜber' <sub darüber vb-w>
Wir müssen darüber nachdenken, wie wir das am besten bewerkstelligen können.
4) PRÜFEN prüft, prüfte, hat geprüft; ÜBERLEGEN überlegt, überlegte, hat überlegt

## <sub obj>

Die Kommission prüft die besondere Situation dieses Landes. / Ich bitte Sie, das zu überlegen.
<sub obj-w>
Sie werden prüfen müssen, ob es nicht irgendeine Alternative gibt. / Wir müssen
überlegen, wie wir das machen
5) DER ANSICHT / MEINUNG / AUFFASSUNG SEIN ist, war, ist gewesen; DIE ANSICHT / MEINUNG / AUFFASSUNG VERTRETEN vertritt, vertrat, hat vertreten

## <sub obj-dass>

Wir sind der Meinung, dass die bereits existierenden nationalen und internationalen
Verfahren ausreichend sind. / Sämtliche Kandidaten vertreten die Ansicht, dass das Ziel der Preisstabilität heute fast erreicht ist.

## 5a) ADJUNct: NACH [JDMs] ANSICHT / MEINUNG / AUFFASSUNG;

## JMDs ERACHTENS

Nach Ansicht der Kommission kann daher Artikel 11 gestrichen werden. / Nach unserer Auffassung sollten unsere Projekte eine positive Wirkung auf die Wirtschaft ausüben. / Mit 'Stabilitaet' als Prioritaet wurde unseres Erachtens die rechte Wahl getroffen.
6) BERÜCKSICHTIGEN berücksichtigt, berücksichtigte, hat berücksichtigt; IN BETRACHT / ERWÄGUNG ZIEHEN zieht, zog, hat gezogen; ERWÄGEN erwägt, erwägte, hat erwogen; DENKEN AN denkt an, dachte an, hat gedacht an <sub obj>
Wir haben alles in der Entschliessung berücksichtigt. / Das Parlament kann diesen Vorschlag unter diesen Umständen nicht in Betracht ziehen. / Dabei werden verschieden Aspekte sorgfältig erwogen. / Denken wir an die Umweltfragen.
<sub obj>; <sub obj-zu-inf>
Würden Sie eine Umbenennung in Betracht ziehen? / Die Union muss in Erwägung ziehen, ihre politischen Beziehungen zu verstärken.

## <sub obj prp-für>

Diese Verfahrensweise sollten wir auch für künftige WTO-Verhandlungen in Betracht ziehen. / Was wir jedoch noch von der Kommission brauchen ist ein förmlicher Beschluß über die Kandidaten, die für die Stelle in Erwägung gezogen werden.
7) BEDENKEN bedenkt, bedachte, hat bedacht

OFTEN WITH CONJUNCTION 'WENN': <sub obj-dass>
Insbesondere erscheint die Schaffung eines solchen Organs wirklich verfrüht, wenn man bedenkt, dass die Ziele der justiziellen Zusammenarbeit noch nicht erreicht wurden
8) ADJUNCT: alles in allem; insgesamt

Alles in allem müssen wir die Ergebnisse respektieren.
Fig. 8.9: Bilingual specimen dictionary entry for CONSIDER

The most difficult decision was to decide whether entries could be grouped into one group or whether they warrant a separate entry. Generally, the German equivalents were only grouped together when they shared the same valency sentence patterns with the same ranking. In these cases it can be assumed that the equivalents are exchangeable in the German sentence structure. Because of the different occurrences regarding voice, 'HALTEN für' and 'BETRACHTEN als' / 'ANSEHEN als' occur as individual entries. Another differentiating point regarding the use of 'HALTEN für' or 'BETRACHTEN als' / 'ANSEHEN als' is that 'HALTEN für' occurs more frequently with an adjective complement, while 'BETRACHTEN als' / 'ANSEHEN als’ occur more frequently with a nominal complement. These preferences are shown in the dictionary entry by the order in which the complements are listed in the valency sentence pattern.

During the compilation of the specimen dictionary it was noted that the more German entries were grouped together the more additional notes were needed to point out specific differences in use between the grouped TEs. This is still notable for entry 6 which includes the TEs BERÜCKSICHTIGEN, 'in Betracht / Erwägung ZIEHEN', ERWÄGEN and 'DENKEN an'. Whereas these TEs can easily be grouped together under the most frequent pattern <sub obj> and the rarer pattern <sub obj prp-for> as they are relatively exchangeable in these patterns (examples $7-7 \mathrm{c}$ and $8-8 \mathrm{c}$ ), this is more problematic for the second pattern <sub obj-ing> shown for this entry.
7) In the resolution we have considered all the points

7-G) Wir haben alles in der Entschliessung berücksichtigt.
7a-G) Wir haben alles in der Entschliessung in Betracht / Erwägung gezogen.
7b-G) Wir haben alles in der Entschliessung erwogen.
7c-G) Wir haben an alles in der Entschliessung gedacht.
8) It is a tactic that we need to consider for future WTO negotiations.

8-G) Diese Verfahrensweise sollten wir auch für künftige WTO-Verhandlungen in Betracht ziehen.
8a-G) Diese Verfahrensweise sollten wir auch für künftige WTO-Verhandlungen berücksichtigen.
8b-G) Diese Verfahrensweise sollten wir auch für künftige WTO-Verhandlungen erwägen.
8c-G) An diese Verfahrensweise sollten wir auch für künftige WTO-Verhandlungen denken.

The pattern <sub obj-ing> is the second most frequent pattern for the TEs grouped under entry 6 with the exception of BERÜCKSICHTIGEN (cf. table 7.12. p 243) which rarely occurs with this valency pattern. There is no obvious reason why BERÜCKSICHTIGEN is rarely used as a TE for CONSIDER with this pattern, as demonstrated in examples 9 and 10.

```
9) The committee calls on the Commission to consider cooperating with other partners.
9-G) Der Ausschuss fordert die Kommission auf, die Zusammenarbeit mit anderen Partnern zu
    berücksichtigen.
10) The Commission should consider protecting chocolate which is produced according to
    traditional methods without additional vegetable oil as a high quality European product.
10-G) Die Kommission sollte auch den Schutz von Schokolade, die nach traditionellen Methoden,
    also ohne Zusatz weiterer Pflanzenfette, als ein europäisches Qualitätserzeugnis
    berücksichtigen.
```

A separate entry for BERÜCKSICHTIGEN would probably have been justified. However, in order to compile the entry based on 'real-life' restrictions which lexicographers face, I set myself the task of using no more than one page to convey all the information and TEs I felt necessary to include. This meant I had to make some compromises. It would have been easy to list each TE and its patterns individually, but this would have meant unrealistically long entries.

I also decided not to show any English meaning definitions of CONSIDER as is common practice in bilingual dictionaries (figures 8.6 - 8.8, p 288) as I am of the opinion that such a definition aid is not necessary. While working with the EuroParl and OMC texts and looking at the concordance lines and their translations I came to the conclusion that the German equivalents which occur with the same valency pattern are by and large suitable alternative expressions as shown in example sentences $11-11 \mathrm{~g}$ for the valency pattern <sub obj> of CONSIDER.

```
11) Consider events in Kosovo.
11-G) Betrachten Sie die Entwicklung im Kosovo.
11a-G) Denken Sie über die Entwicklung im Kosovo nach
11b-G) Überlegen Sie die Entwicklung im Kosovo.
11c-G) Prüfen Sie die Entwicklung im Kosovo.
11d-G) Berücksichtigen Sie die Entwicklung im Kosovo.
11e-G) Ziehen Sie die Entwicklung im Kosovo in Betracht / Erwägung.
11f-G) Erwägen Sie die Entwicklung im Kosovo.
11g-G) Denken Sie an die Entwicklung im Kosovo.
```

Admittedly, a native German speaker could claim that there are differences in meaning between the various choices, but these differences cannot be identified based on the English sentence 11. I believe that it is a misleading notion to try to match monolingual nuances in meaning, which are based on common usage, within a specific lexical and syntactic language system, with a foreign language which is unavoidably based on a different system. This is also argued by Altenberg and Granger (2002: 21) who note that "languages divide up semantic space in different ways and that therefore the number of concepts encoded in the vocabulary differs from one language to another". It is exactly for this reason that I argue that these monolingual definitions are not helpful in bilingual dictionaries. Firstly, as discussed above, there is no consistency between the meaning definitions of CONSIDER and their TEs amongst the dictionaries. Secondly, it is almost impossible to match the given meaning definitions of CONSIDER with any certainty to a given complete sentence. For example, according to HC (figure 8.8, p 288) the TE BETRACHTEN is suitable for the meaning 'look at' of CONSIDER, and the TEs ÜBERLEGEN and 'NACHDENKEN über' express the meaning 'reflect upon', while the suitable TEs for the meanings 'have in mind' and 'entertain' are 'in Erwägung ZIEHEN' and 'in Betracht ZIEHEN' respectively. But which meaning definition applies to the above sentence 11? As I see it a wider context would be needed in order to assign any of the meaning definitions to the sentence, and even then differences in opinion will occur.

The decision to show both TEs and valency sentence patterns means that some patterns are repeated. This is unavoidable, as words share patterns. Furthermore, looking at the suggested specimen entry (figure 8.9, p 300) it is also notable that the entry is longer compared to other bilingual dictionary entries for CONSIDER (figures $8.6-8.9$, p 288). This is also unavoidable as the aim is to demonstrate the similarities and differences between two languages based on words and their possible TEs. In addition, the specimen dictionary entry also includes the principal parts for conjugation of verbs in English and German. This is not common for bilingual dictionaries so far. However, I feel it is important as it gives important information on the sentence structure and therefore ought to be presented in a dictionary. For example, the specimen dictionary entry shows that the German verb NACHDENKEN is a bracketing verb and is separated in the present and past tense.

The decision to show the German equivalents as close as possible to the meaning of CONSIDER has implications for the German-English entry. For example, rather than showing HALTEN as equivalent for CONSIDER with the sentence structure <sub obj für adj / nom, it was decided to show 'HALTEN für' as equivalent with the sentence structure <sub obj adj / nom> since only HALTEN with the particle 'für' is a suitable translation for CONSIDER. As can be seen in the specimen entry the chosen presentation form of HALTEN FÜR makes it unmistakably clear to the user that this is the correct translation. However, this means that the German-English dictionary entry HALTEN, with its English counterparts, ought consequently to show HALTEN FÜR as a separate (sub-)entry.

The suggested specimen dictionary entry for the verb CONSIDER demonstrates how working with parallel corpora, frequency analysis, and presentation of valency sentence patterns can help in improving the information given in bilingual dictionaries. The example sentences provided are based on actual usage. This contrastive approach highlights similarities and differences between the two languages with regard to the choice of TEs. It is
therefore believed that such a dictionary is of greater practical value to users than many existing bilingual dictionaries.

### 8.4.2 Monolingual English Thesaurus - Semantic Fields

The following idea for a monolingual English thesaurus specimen dictionary entry occurred to me first while reading Schumacher's (1986) book 'Verben in Feldern' (verbs by semantic fields). 'Verben in Feldern' distinguishes itself from other dictionaries of synonyms in that it groups the verbs based on semantic descriptions or definitions, such as 'verbs of evaluation', 'verbs of orientation', 'verbs of mental activity' etc. Of course, such an approach is partly questionable as the categories are based on personal intuition and often partly overlap. However, from a learner's point of view it has benefits, especially in vocabulary development.

During the research into the valency sentence patterns of CONSIDER, BELIEVE, FEEL and THINK and their respective translation equivalents and sentence patterns I noticed, as was expected, that these verbs share several TEs. Throughout this study a key point of interest has been the relationship between the valency sentence patterns of words and their respective meaning, i.e. to find out whether valency sentence patterns indicate word meaning in a bilingual context. The key aim of the following specimen dictionary entry is to show how an English monolingual dictionary could be more helpful to German learners of English than existing monolingual English dictionaries. Choosing a thesaurus entry also provides the opportunity to contrast the British pattern grammar approach, as represented in for example 'Grammar Patterns 1: Verbs' (Francis et al. 1996), with the German valency approach, as represented in 'Verben in Feldern' (Schumacher 1986), in more detail regarding patterns and structure on the one hand, and meaning on the other.

Both publications group verbs according to an interpreted meaning relationship and show the syntactic structures of the grouped entries. Both publications note that that the verb groups are based on intuition and that other lexicographers may have arrived at different groupings. The difference between the two publications is in the approach taken. While Francis et al. (1996) first look at complementation patterns, and then try to identify a common meaning for verbs which share a pattern, Schumacher (1986) first groups the verbs and then analyses the valency complement types. Generally, the verbs in the various groups do not share the same valency sentence structures (Satzbaupläne). Although, the intention of both publications is to help learners build vocabulary and show them the appropriate syntactic structures for alternative expressions, the outcome is different. Comparing the entries of 'Verben in Feldern' and VALBU with the entries in the CCED and VDE it seems that the idea of words sharing the same local grammar, or complementation patterns, also share a meaning definition is less pursued in German linguistic analysis than in British linguistics. However, such a comparison might be unfair as Francis et al. (1996) base their findings on complementation forms, which could be viewed as being closer to the surface structure of a phrase or clause than German valency complements traditionally are. As such the two approaches are not directly comparable.

Schumacher (1986: 519) classifies one category as 'verbs of evaluation' ('Verben der Evaluation), which interestingly contains the entries 'ANSEHEN als', 'AUFFASSEN als', ‘BETRACHTEN als’, ‘die Ansicht / Meinung / Auffassung HABEN’, ‘HALTEN für’ and 'der Ansicht / Meinung / Auffassung SEIN', which in the corpus study were identified as the main TEs of CONSIDER. Furthermore, other words or phrases he classifies as similar in meaning (ibid.: 521) include MEINEN, GLAUBEN, DENKEN and VERMUTEN, which also occurred as TEs of CONSIDER. This could indicate that words in a bilingual context are more likely to be interpreted or translated within meaning categories than one-to-one equivalents. When considering user needs in dictionary compilation this observation seems to indicate that
monolingual thesauri, where the meaning or sense groups are based on the learners' language, could be an effective tool in language acquisition.

Two key issues occurred during the compilation of the monolingual English thesauri specimen entry. Firstly, the category issue. It is imperative that the semantic categories are as far as possible mutually exclusive. Secondly, the meaning analysis issue. Are the verbs placed in categories independent of their complementation patterns or should these be taken into account? The specimen entry (figure 8.10) highlights these issues.

| Verbs of Evaluation | Verbs of Mental Activity |
| :---: | :---: |
| BELIEVE believes, believed, believing <br> <sub vb-that> <br> We believe that the Varela Project is an important initiative. | BELIEVE believes, believed, believing <br> <sub obj> <br> The people of East Timor believed us when we told them we would protect them. <sub prp-in> <br> We believe in neither the hand of fate nor market logic. |
| CONSIDER considers, considered, considering <sub obj [vb-to-be-] adj / nom> <br> We consider the risk to be relatively low. / I consider this development highly questionable. / I consider self-regulation instruments to be an important addition to a legal framework. / Some consider the 20th century a century of war and bloodshed. | CONSIDER considers, considered, considering <sub obj> <br> We must carefully consider the balance of power. |
| <sub it adj / nom vb-to-inf>; < sub it adj / nom vb-that> <br> We consider it appropriate to extend the deadlines proposed. / We consider it a bad idea to take the funding from the farming sector. / I consider it obvious that Article 31 does not supply the relevant legal basis. / For that reason we actually consider it a good idea that a new policy is being constructed. | <sub obj-ing> <br> Would you consider renaming? / The Union ought to consider strengthening its political relations as well. |
| <sub vb-that> <br> We consider that the level proposed is too low. | <sub obj-wh> <br> We will have to consider how it is going to be done. |
| <sub obj nom-as / adj-as> <br> What we really wanted was for you to consider us as your ally. / The ionization of food must even be considered as beneficial to the consumer. | <sub obj prp-for> <br> What we still need from the Commission though is a formal decision on the candidates to be considered for the post. |
| FEEL feels, felt, feeling <br> <sub vb-that> <br> We feel that these actions are cause for very serious concern. | FEEL feels, felt, feeling <br> <sub obj> <br> I feel a sense of frustration. <br> <sub vb-to-inf> <br> We feel entitled to ask you further regarding a number of questions that are on everyone's mind today. |
| THINK thinks, thought, thinking <sub vb-that> <br> We do think that European voluntary service is a very good project. | THINK thinks, thought, thinking <sub prp-of> <br> Just think of the gigantic discrepancies between commitments and payments. |

Fig. 8.10: English monolingual thesaurus entry grouped by semantic fields

For the specimen entry two separate categories were analysed, 'verbs of evaluation' and 'verbs of mental activity'. The valency sentence patterns are listed in order of the frequency of occurrence in the corpus as I feel listing entries in order of their usage should be the preferred option in monolingual dictionaries. While Schumacher (1986), and for that matter all thesauri or synonym dictionaries, do not take complementation patterns into account, the entries in the specimen entry do. As a result, the four investigated verbs BELIEVE,

CONSIDER, FEEL and THINK occur in both categories but with different valency sentence patterns.

### 8.5 Conclusion

At the start of the chapter an investigation into the current practice of monolingual and bilingual dictionary compilation was undertaken. As examples, three monolingual and three bilingual dictionaries were compared for the verb CONSIDER regarding their meaning definitions, i.e. their paraphrases and TEs, the syntactic information they present, and their general usefulness for the specific user. The finding that the various dictionary entries in general tend to differ from each other notably is probably not surprising when considering that meaning interpretation and syntax presentation is largely subjective and dependent on the lexicographer.

The monolingual dictionaries were chosen because they have a strong focus on providing syntactic information. Interestingly, it was noted that the English monolingual dictionaries, the CCED and the VDE, establish a strong link between meaning and the syntactic environment of a word, while a similar relationship is not emphasised in the German monolingual dictionary VALBU. Furthermore, monolingual dictionaries, although aimed at language learners, display syntactic information based on the conventions of the presented language, i.e. classification of sentence elements by word-class for English and by syntactic case for German.

With regard to bilingual dictionaries, it was found that there is a strong emphasis on phrases and that the syntactic information provided is not comparable between the two languages, i.e. they provide little help in choosing the appropriate TE, and in applying it correctly in sentence construction in the target language.

Based on the findings of the case study (chapters 6 and 7) two specimen dictionary entries were suggested. One bilingual entry English - German, and one English monolingual thesaurus entry based around the idea of semantic fields. By using corpus information for the bilingual dictionary entry, the suggested TEs can be listed in relation to their frequency, i.e. they are not arbitrary. The provided syntactic information, based on valency theory, displays the sentence elements according to their syntactic function, which I believe is a suitable compromise for the languages English and German, i.e. the so-called syntactic metalanguage is understood by English and German native speakers alike. This allows the dictionary user to compare the syntactic structure and note differences in the use of words. Similarly, the monolingual thesaurus entry helps users to note the syntactic differences with regard to meaning, i.e. their affiliation to semantic fields.

The main advantage of the approach taken for the specimen dictionary entries is that they allow a comparison of the languages English and German with regard to the lexical and syntactic use of words. Furthermore, the inclusion of corpus investigation into bilingual dictionary compilation, which is standard in monolingual dictionary compilation, seems especially beneficial as it reduces arbitrary and subjective decisions, and has, in my opinion, been underutilised so far.

## 9 THESIS CONCLUSIONS

### 9.1 Introduction

The thesis is founded on two premises. The first is that language as a social construct is concerned with the transmission of meaning and therefore any investigation into language is ultimately about meaning interpretation. The 'meaning' of a word is established through definition and paraphrase (Lyons 1995: 26). In monolingual analysis, paraphrases are synonyms or near-synonymous words or phrases. In multilingual analysis, translation equivalents (TEs) represent the paraphrase and hence the meaning of the original text (Teubert 2001: 144). The second premise is that theories about language investigation are theoretical constructs which are based on the beliefs of the researcher(s). As a result, different theories about language analysis have developed which focus on different aspects of language, foregrounding either syntactic, functional, semantic or communicative aspects. Ideally a theory about language should be able to investigate all aspects or levels of language analysis, but it is necessary to decide on one aspect as a starting point, since congruence between the different aspects or levels cannot be assumed.

As a starting point for the investigation, syntactic aspects, the complementation patterns of verbs, were chosen. The methodologies utilised in the case study were corpus investigation and valency theory. The objective of the research was to investigate the crossing points between syntactic structure and meaning interpretation. For the case study, the polysemous verb CONSIDER and its near-synonyms BELIEVE, FEEL and THINK were investigated. The approach taken is novel in the sense that the findings are solely based on the investigation of corpora, i.e. valency sentence patterns (Satzbaupläne) for the verbs were identified based on their occurrence in the corpora, and meaning interpretation in the contrastive study is based on the TEs occurring in the corpora.

Section 9.2 looks at the contribution of this thesis to linguistic enquiry in general, but I will also critically reflect on the findings with respect to the research questions (section 1.2, pp 23 ) and the hypotheses for the case study (cf. section 2.3, pp 34-35). Concluding the thesis, section 9.3 will address implications for further research.

### 9.2 Achievements of the Thesis

This thesis has demonstrated that the use of words is constrained by their local grammar, whereby 'grammar' has to be understood syntactically and lexically. Thus, meaning is not only defined lexically, i.e. through phrases and collocations, but also grammatically, i.e. through colligations represented as valency complements (Satzergänzungen) in this investigation. As a consequence, language competence requires both syntactic and lexical knowledge.

However, if we take the translations of the various syntactic patterns in which CONSIDER occurs as an indicator of their meaning, it has also been shown that there is a vast degree of overall freedom in the interpretation of meaning. It is not possible to tell with absolute certainty how grammatical meaning is interpreted in the translation, and therefore to what extent we should assume a fixed meaning to syntactically defined constructions. From the perspective of translation, we can see that language is much less a rule-based construction process than often assumed, i.e. language construction is much more flexible and unpredictable.

As a consequence, the research questions cannot be answered with a simple 'yes' or 'no', but have to be answered with 'yes and no'. Hence, the first research question 'Do syntactic complementation patterns indicate differences in the meaning interpretation of a word?' should be answered as follows (cf. table 7.12, p 243):
> Yes, valency sentence patterns are to some extent an indicator of meaning, and
> No, valency sentence patterns are not a reliable indicator of meaning interpretation.

Depending on the purpose of an investigation, either viewpoint may be preferred. For example, with the suggestion of specimen dictionary entries, I have argued that occurrences of a valency sentence pattern with a specific meaning interpretation coincide frequently enough to draw generalisations for applied linguistics, specifically for the purpose of dictionary compilations in second language teaching. From a theoretical perspective, however, I would warn against a rule-based approach to language because, as mentioned above, language is a social construct based on conventions amongst its users, conventions which can be and often are violated. This aspect of language will be discussed in greater detail in the following paragraphs.

The answer to the second research question 'To what extent do words which are attributed with similar meanings occur with the same syntactic complementation pattern?' is more complex as there are differences between the monolingual and the bilingual findings.

The investigation has shown that differences in word meanings can be very subtle and the wide variety of paraphrases in the monolingual as well as the bilingual investigations seems to indicate that interpretation of meaning is basically a creative process. On the other hand, it has been claimed that the purpose of language is the conveyance of meaning, i.e. the transmission of information (Fischer 1997: 5; Teubert 2001: 130). This discrepancy is probably best explained by referring to what Hoey (2005: 8) calls 'priming', i.e. word meaning is determined by the cumulative exposure of language users to words in certain contexts. Thus, the meaning of words is restricted to specific areas of usage and acquires specific collocational and colligational functions within a text (Tognini-Bonelli 2001: 34).

The monolingual study (cf. section 6.4, p 207) has shown that the near-synonyms generally have their individual valency sentence patterns, and only a few patterns are shared between these. Interchange of the near-synonyms generally requires a syntactic change, i.e. a different valency sentence pattern. Even amongst the shared patterns, an interchange of the near-synonyms is not generally possible. This confirms the hypothesis for the monolingual case study (section 2.3, p 34). However, it has been noticed that a possible interchange seems to depend, independently of the valency sentence patterns involved, to some extent also on factors such as word-form, tense, active or passive voice. In this respect, the helpfulness of monolingual dictionaries and thesauri may be a fallacy and students' reliance on them a mistake, as they do not account for these features.

In contrast, the bilingual study (cf. section 7.4, p 242) has shown that the German key TEs show a preference for certain valency sentence patterns of CONSIDER. Furthermore, the preferred TEs for a given pattern of CONSIDER tend to occur with an equivalent valency sentence pattern, confirming the hypothesis for the contrastive investigation that translations will, whenever possible, retain the original sentence structure (cf. section 2.3, p 34). Similar to the monolingual study, it has also been noted that the choice of a TE does not only depend on the valency sentence pattern, but may also be influenced by other factors, such as, for example, active or passive voice.

These findings were confirmed in the investigation of the near-synonymous verbs BELIEVE, FEEL and THINK. However, the four investigated verbs differ notably in the number of their possible TEs (cf. table 7.10, p 240). Furthermore, the number of their shared TEs is relatively small (cf. table 7.11, p 242). This indicates that while in monolingual use the meaning of CONSIDER, BELIEVE, FEEL and THINK is generally understood to be interchangeable, this is the case to a much lower extent in translation, where their meaning is much more differentiated. Overall, the affinity between the valency sentence pattern and the choice of a

TE is notable across the four English verbs investigated (cf. table 7.14, p 252). However, there are exceptions as, for example, demonstrated by the TE ÜBERLEGEN, which occurs most frequently as a TE of CONSIDER with the valency sentence pattern <sub obj-wh> and as a TE of THINK with the pattern <sub prp-about>.

In summary, it can be stated that there are conventions amongst translators and that Kenny's (2005: 162) statement that "the same stretch of source text will be translated in almost as many ways as there are translators" needs to be relativised. The investigation has shown that the more syntactic changes a possible TE requires, compared to the original sentence structure, the less likely it will be chosen as a TE in actual translations (cf. section 7.5, p 253). Nevertheless, it is true that overall there is a wide variety of TEs which have been shown to be equally well suitable, and it is only fair to say that the ultimate choice depends on the judgement of the translator.

The hypothesis that corpus investigation is a more reliable tool in identifying the key TEs than lexicographers' intuition has been confirmed. It has been shown that the relative importance of key translations is not reflected in bilingual dictionaries. Furthermore, the use of two different bilingual corpora for the investigation ensured that any potential genre specific bias in the findings was avoided. Both corpora, EuroParl and OMC, showed the same key TEs (cf. table 7.4, p 232). Two conclusions can be drawn from this. The first relates to the current practice of bilingual dictionary compilation, and the second to the use of corpora in bilingual dictionary compilation.

First, the usefulness of current bilingual English-German dictionary practice needs to be questioned. For example, the investigation into bilingual dictionary entries (cf. section 7.2.1, p 223) revealed the German verb ÜBERLEGEN as a key TE of CONSIDER, i.e. it is mentioned in first position in dictionaries. However, the corpus investigation has shown that 'HALTEN
für' is the key TE, i.e. the most frequent TE, of CONSIDER (cf. table 7.5, p 234). Assuming that the first entry in a bilingual dictionary should be the most frequent translation this finding is somewhat disconcerting. Furthermore, it has been shown that dictionaries tend to focus on phrases, rather than providing support for language production. The bilingual specimen dictionary entry (cf. figure $8.9, \mathrm{p} 300$ ) provides an example of how syntactic information based on corpus findings can be included in order to highlight differences and similarities between two languages.

In addition, the investigation into the TEs has shown that translations are generally not reversible, a fact that needs to be taken into account in bilingual dictionary compilation. For example, the German verb ÜBERLEGEN is more likely to be translated into CONSIDER than the English verb CONSIDER is into ÜBERLEGEN (cf. table 7.7, p236). Yet, as mentioned above, ÜBERLEGEN is frequently given as key TE of CONSIDER in dictionaries.

Secondly, it is my opinion that corpus linguistics has been largely underutilised in contrastive studies, and specifically in applied linguistics. This might be due to the fact that bi- and multilingual corpora, in contrast to monolingual corpora, are often genre specific and are therefore dismissed for general studies. For example, the EuroParl corpus shows overall a higher frequency of the valency sentence pattern <sub obj-that> for the verbs under investigation (cf. tables 6.6 to 6.9 , pp 212-215) than the BoE or the OMC corpora. This is due to the fact that EuroParl is a semi-spoken corpus and these reporting structures are typical for spoken language.

Firth's (in Tognini-Bonelli 2001: 11) proposed focus on language events which are "typical, recurrent and repeatedly observable" in language investigation, emphasises the importance of attempting to reduce chance encounters and appears to favour frequency analysis and statistical measures in language investigation. However, whilst frequency analysis has its
uses in the identification of differences between registers for word and pattern distribution, it has its limitations in the investigation of meaning. As noted by Teubert and Čermáková (2007: 56) "such numeric data indicates 'how often', but does not answer 'what does this mean'. Statistical information does not signify meaning; it is how we use a word, its lexical and grammatical context and its wider discourse, which determines the sense". The approach used in this thesis pays attention to the above two considerations. Frequency analysis was used to verify relevant valency sentence patterns (cf. Ágel 1988) and key TEs. However, following Sinclair (1991) and Groom (2007) the patterns and the TEs were identified manually based on a sufficiently large number of concordance lines (cf. section 2.2.1, pp 32-33). This approach allowed qualitative and quantitative analysis of the data, and it has been shown that the findings are reliable.

This thesis has argued and demonstrated that valency theory, due to its versatility with regard to the categorisation of the valency complement types, is a suitable methodology for language investigation. As has been shown, valency theory is capable of distinguishing between the different levels of language analysis (cf. chapter 4, p 71), and therefore allows for an integrated analysis of language, paying attention to syntactic, functional and semantic aspects (Engel 2004: 193). The analysis has also shown that a one-to-one relationship between the different levels cannot be assumed. Valency theory, unlike many other grammar theories, is based on the assumption that syntactic form and semantic function are interdependent, but separate levels of language analysis. The comparisons with other theories and concepts (cf. chapters 4, p 71, and 5, p 122), e.g. transitivity analysis, constituency grammar, case grammar, frame semantics, systemic functional grammar, and construction grammar, have shown that this flexibility of the valency approach is its main advantage over these with regard to the investigation of the lexico-grammatical interplay.

The thesis has also succeeded in demonstrating that valency theory is a particularly suitable methodology for contrastive language analysis. The differences and similarities between the local grammar of equivalent words, i.e. meanings, can be investigated at the different language levels by contrasting the syntactic surface realisation forms and / or the semantic functions of sentence elements of one language with those of another language. As demonstrated in the case study (cf. sections 5.3.3.1, p 165, and 7.4, p 242), this flexibility regarding the valency complement categorisation types allows the overcoming of differences on the surface level and allows definition of categories that are equally suitable for both languages, English and German.

The main achievement of this thesis is, in my opinion, that it highlights the problems of investigating the lexico-grammatical interplay in a contrastive context. The thesis therefore contributes to addressing these issues, and it hopes to inspire further research into new directions to think about local grammar. In the next section I will briefly address some areas in which this thesis can be developed.

### 9.3 Implications for Further Research

This investigation, because of its limited scope, cannot be conclusive, but it is offered here as an example of how the use of corpora and the study of valency patterns can contribute to interpretation of meaning. The contrastive analysis offers, in my opinion, the most scope for development and further research.

First of all, an investigation into a wider range of verbs and verb types is required. Although it can be hypothesised that the findings will be similar, i.e. overall there will be a wide variety of meanings but the most frequent TEs will coincide with certain valency sentence patterns, this still needs to be proven. Such an investigation might also provide insights into possible


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correlations between polysemy and the number of valency sentence patterns. For example, the verbs THINK and BELIEVE have considerably fewer German TEs than the verb CONSIDER (cf. table 7.10, p 240), yet THINK has the most valency sentence patterns with 19 different patterns, while BELIEVE has the fewest number of valency sentence patterns with ten, and CONSIDER is between the two with 15 valency patterns (cf. table 6.5, p 207). This seems to indicate that there is no correlation. It also seems to show that there is no correlation between the frequency of a word and its number of TEs, e.g. THINK is the most frequent verb of the four verbs investigated in all the corpora, however, it has notably fewer German TEs than CONSIDER.


Furthermore, since valency theory is not restricted to complementation patterns of verbs, a contrastive comparison of nouns and adjectives also needs to be undertaken. It is my belief that the suggested approach for verbs is also applicable for other word-classes. Nevertheless, identifying suitable valency complement category types that allow a contrastive comparison will pose different challenges than the ones discussed in this thesis. Similarly, contrastive investigations involving other languages, e.g. languages with different word orders will pose different challenges in the valency complement categories.

An interesting area of further research would be to study the verb phrase itself. The analysis in this study has shown that factors such as active / passive voice, negation and the occurrence of modal verbs contribute to meaning interpretation. For example, in the monolingual study it has been shown that replacement with a near-synonym may be acceptable in the passive, but not in the active voice. Similarly, some TEs seem to be the preferred choice for the passive form of a valency sentence pattern, while the active form of the same pattern has a different preferred TE. This is an area in which very little research has been undertaken so far.

This thesis is mainly concerned with syntactic valency complements. However, in the next step the semantic argument structure ought to be investigated in order to provide a holistic comparison of the two languages English and German.

### 9.4 Epilogue

I would like to end the thesis as it began:


Looking at the statement with the findings of this thesis in mind, it is quite realistic to endorse such a statement. In both investigations, monolingual and bilingual, it is not possible to ascribe meaning in the form of paraphrase, i.e. synonym, or TE with absolute certainty to any of the verbs under investigation. However, if language users did follow Humpty Dumpty's statement, communication, i.e. the transfer of information, would be impossible. Language users follow certain conventions within their language community in order to be understood, while at the same time introducing also some idiosyncrasies of their own.

A key task of linguistic enquiry is, in my opinion, to investigate the relationship between conventions and innovative idiosyncrasies. Thus, the objective of the thesis has been to explore the conventions amongst language users (and translators) with regard to the interplay of the local grammar of words and their meaning. It has been shown that such conventions exist and that valency sentence patterns can be a useful indicator of likely meaning. The Carroll quote, however, serves as a reminder not to dismiss less frequent occurrences that tell us that meaning is not entirely fixed and can always be renegotiated
among language users, since language develops and the 'creative' uses of today may become the common form tomorrow.

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www.dictionary.cambridge.org/
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www.patternbank.uni-erlangen.de/cgi-bin/patternbank.cgi
E-Valbu - Das elektronische Valenzwörterbuch deutscher Verben http://hypermedia2.ids-mannheim.de/evalbu/Lemmaliste.html
FrameNet - Lexical Database of English https://framenet.icsi.berkeley.edu/

LEO English-German Dictionary
www.dict.leo.org/
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BNC (British National Corpus)
http://www.natcorp.ox.ac.uk
BoE (Bank of English) - Corpus, University of Birmingham
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System) - Institut für Deutsche Sprache
https://cosmas2.ids-mannheim.de/cosmas2-web/
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OMC (Oslo Multilingual Corpus) - Corpus, University of Oslo
http://www.hf.uio.no/ilos/english/services/omc/
ParaConc269
Michael Barlow (2004); Distribution: Athelstan
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Mike Scott (1996); Distribution: Lexical Analysis Software Ltd. and Oxford University Press
<b class=normal1> C:\Users $\backslash$ Reni $\backslash$ Documents $\backslash d e-e n \backslash e n \backslash e p-02-05-14 . t x t</ b>$
 Mitgliedstaaten sowie im Europäischen Lebensmittelamt in Dublin erforderlich sind .
<b class=normal1> C:\Users $\backslash$ Reni \Documents $\backslash d e-e n \backslash e n \backslash e p-98-07-01 . t x t</ b>$

 2. Aber wir mussen weiterhin unsere Anstrengungen
die Kommission einige Maßnahmen und Studien prüfen.
<b class=normal1> $\mathrm{C}: \backslash$ Users $\backslash$ Reni $\backslash$ Documents $\backslash$ de-en $\backslash e n \backslash e p-01-02-13 . t x t</ b>$

 wenn sie nicht als vorrangig betrachtet wird, nicht beispielsweise von Vizepräsident Kinnock beantwortet werden kann
<b class=normal1> $\mathrm{C}: \backslash$ Users $\backslash$ Reni $\backslash$ Documents $\backslash$ de-en \en \ep-97-10-21.txt</b>
 <b class=normall> C:\Users \Reni\Documents \de-en\en\ep-97-04-08.txt</b>
5. I am ready to [[consider]] all of these ideas and work on them .
<b class=normal1> C:\Users \Reni \Documents \de-en\en\ep-01-07-05.txt</b>
<sub obj vb-to-be-adj> NOMINALISATION

(
<b class=normal1> C: \Users $\backslash$ Reni $\backslash$ Documents $\backslash$ de-en $\backslash e n \backslash e p-01-06-11 . t x t</ b>$





<b class=normal1> C:\Users $\backslash$ Reni $\backslash$ Documents $\backslash$ de-en $\backslash e n \backslash e p-02-12-04 . t x t</ b>$
 und 4 für außerordentlich wichtig. . Berichte und Vorschläge zu prüfen .
8. Lastly account
<b class=normal1> C:\Users \Reni\Documents\de-en\en \ep-02-01-17.txt</b> <sub obj> PASSIVE

 um die Regenerierung der Bestände zu ermöglichen
<b class=normal1> C:\Users \Reni\Documents \de-en\en \ep-96-11-13.txt</b>



 dem Rat in dieser Angelegenheit regelmäßig berichten
<b class=normal1> C:\Users \Reni\Documents\de-en\en\ep-98-07-15.txt</b>
<sub obj>
11. Fourthly , Parliament must [[consider]] and maintain carefully its parliamentary and political influence on the public .
11. Viertens : Das Parlament muß die Möglichkeiten seiner parlamentarischen und politischen Außenwirkung , d.h. seines Einflusses auch auf die Öffentlichkeit, sorgfältig wahren und bedenken.
<b class=normal1> C:\Users \Reni\Documents\de-en\en \ep-00-09-05.txt</b> <sub obj>


<b class=normall> C:\Users\Reni\Documents\de-en\en\ep-97-03-11.txt</b>
<b

[^28]MAY I plead with your readers to consider a New Year free from cruelty to animals. <sub obj>
We conside <sub obj adj>
... and replied clearly in broken English: `I consider this tribunal false tribunal and the indictments false indictments. <sub obj nom> A spokesman for the ECB said: ‘We do not consider this appropriate behaviour for an England player during a Test match an <sub obj adj> This young woman certainly has nothing to moan about and should consider herself extremely lucky to be alive. <sub obj adj> ... and he has asked that, instead of flowers, if people wish to honour Linda they might like to consider giving a donation ... and replied clearly in broken English: `I consider this tribunal false tribunal and the indictments false indictments.
<sub obj nom>
A spokesman for the ECB said: ‘We do not consider this appropriate behaviour for an England player during a Test match an
<sub obj adj>
This young woman certainly has nothing to moan about and should consider herself extremely lucky to be alive.
<sub obj adj>
... and he has asked that, instead of flowers, if people wish to honour Linda they might like to consider giving a donation
... and replied clearly in broken English: `I consider this tribunal false tribunal and the indictments false indictments. <sub obj nom> A spokesman for the ECB said: ‘We do not consider this appropriate behaviour for an England player during a Test match an <sub obj adj> This young woman certainly has nothing to moan about and should consider herself extremely lucky to be alive. <sub obj adj> ... and he has asked that, instead of flowers, if people wish to honour Linda they might like to consider giving a donation ... and replied clearly in broken English: `I consider this tribunal false tribunal and the indictments false indictments.
<sub obj nom>
A spokesman for the ECB said: ‘We do not consider this appropriate behaviour for an England player during a Test match an
<sub obj adj>
This young woman certainly has nothing to moan about and should consider herself extremely lucky to be alive.
<sub obj adj>
... and he has asked that, instead of flowers, if people wish to honour Linda they might like to consider giving a donation
... and replied clearly in broken English: `I consider this tribunal false tribunal and the indictments false indictments.
<sub obj nom>
A spokesman for the ECB said: ‘We do not consider this appropriate behaviour for an England player during a Test match an
<sub obj adj>
This young woman certainly has nothing to moan about and should consider herself extremely lucky to be alive.
<sub obj adj>
... and he has asked that, instead of flowers, if people wish to honour Linda they might like to consider giving a donation Cancer Research, animal welfare charities or - best
<sub obj-ing>
But Mr O'Donoghue remained cautious. Issues: It is something that we would obviously consider," he said.
<sub obj>
<sub obj-that> (WIHOU NHAT) <sub obj-that> (WITHOUT 'THAT')
It can even drive some youngste
<sub obj>
<sub obj-wh>
id you know
<sub obj-ing>
Then, once you
ssub oblat
<sub obj-ing>
How can Edward even consider making money by raking up the terrible events of his sister-in-law's death?
<sub obj-ing>
They also pressed Mr Lewis last night to consider a set of proposals to stabilise the very serious situatir
<sub obj vb-to-inf>
<sub obj-ing>
How can Edward even consider making money by raking up the terrible events of his sister-in-law's death?
<sub obj-ing>
They also pressed Mr Lewis last night to consider a set of proposals to stabilise the very serious situatic
<sub obj vb-to-inf>
<sub obj-ing>
How can Edward even consider making money by raking up the terrible events of his sister-in-law's death?
<sub obj-ing>
They also pressed Mr Lewis last night to consider a set of proposals to 'stabilise the very serious situati
<sub obj vb-to-inf>
.. we must wait to see how the FA view the affair and, of course, there could be other matters to consider
<sub obj>
It is a shame that the same effect is absent in what they consider a boring trudge: the league.
<sub obj nom>
... of peace, love and optimism, but they also explode with melodic and rhythmic invention - consi
<sub obj>
It is a shame that the same effect is absent in what they consider a boring trudge: the league.
<sub obj nom>
.. of peace, love and optimism, but they also explode with melodic and rhythmic invention - consi
<sub obj>
THE last
<sub obj>
We hope they will re-consider their position.
<sub obj>
"We've spent
"Well," he
<sub obj>
-i $\qquad$ ̇
$\dot{\oplus}$
$\underset{\sim}{i}$
$\stackrel{\oplus}{\square}$
$\stackrel{\circ}{-}$ $\dot{\rightrightarrows}$
If we consider the $A C B$ situation with Warne and Waugh, they were disciplined by the ACB, and the ICC was ...
<sub obj>
... he add

Only then should you start to consider fund managers and the trusts they offer.
<sub obj>
... have the
<sub obj adj>
... have the grace to legalise voluntary euthanasia so that we can die with dignity at a time we consider appropriate.
<sub ob
... not


Its first instruction was to pause before lifting anything, to consider whether the thing really needed lifting.
<sub obj-wh>



<sub obj-ing>
The Allied Dom
 <sub obj>
 <sub obj vb-to-be-adj>

$\begin{array}{llll}\dot{\circ} & \dot{\sim} & \dot{\circ} & \dot{\sim}\end{array}$
$\dot{-} \dot{m}$
$\dot{m}$
-
<sub obj-wh>
Consider buying a good 25 year old car as the family runabout.
<sub obj nom-as>
Should his father

Sandro Giovanelli, of the IAAF, said earlier that the organisers did not consider Moscow would be dangerous.
<sub obj-that> (WITHOUT 'THAT')
This is especially remarkable wh

 customers for their views.

[^29]$\dot{\sim}$
்ㅜ え̀
 $\dot{m}$ $\dot{m}$ ${ }^{\infty}$ ウ்
40.






[^0]:    ${ }^{2}$ I have decided to use the term 'divalent' following Tesnière's (1980) terminology. However, it should be noted that the term 'bivalent' (cf. Huddleston and Pullum 2002: 219) is also used for referring to sentence patterns with two valency complements (Satzergänzungen).

[^1]:    ${ }^{3}$ All subsections of the BoE were included with the exception of the transcribed spoken texts as it was felt that spoken language has a different grammar.

[^2]:    ${ }^{4}$ Although it is not made explicit how many people were interviewed, nor who is represented in the survey, i.e. academics, 'the man on the street', or both

[^3]:    ${ }^{5}$ CONSIDER is the only word under investigation which occurred less than 100 times in the OMC-O ( 65 times) and the OMC-T ( 80 times)

[^4]:    ${ }^{6}$ Bopp (2009: 3) notes that DeReKo consists of $3,600,000,000$ words in total, but due to copyright issues only 2,400,000,000 are publicly available.

[^5]:    ${ }^{7}$ Observed relative frequency $=($ total occurrences $* 1,000,000) /$ total word count

[^6]:    ${ }^{8}$ Raw frequency was chosen since ParaConc offers only collocation profiles by raw frequency. However, an analysis by T-score, statistical measure of certainty of collocation, in the BoE showed a similar profile.

[^7]:    ${ }^{9}$ Interestingly, Cobuild have now dropped this coding in the most recent edition of the dictionary as being not pedagogic enough (personal discussion with Susan Hunston, May 2013).

[^8]:    ${ }^{10}$ The terms 'subject complement' and 'object complement' adhere to the valency approach and relate to the subject and object of a sentence respectively. This is different to established English terminology (see pp 132-133).

[^9]:    ${ }^{11}$ No occurrences in the BoE. However, the structure is grammatically correct as examples a) for 'eagerly' and b) for 'easily' from the BoE show:
    a) The whole family eagerly gathers around the TV. / Countries eagerly seek the rich world's savings. / You eagerly devour them.
    b) He easily delivers to his opponents. / Stalin easily outranks Hitler. / The region easily wins prizes.

[^10]:    ${ }^{12}$ In order to demonstrate the case markings more clearly the elements 'Egypt' and 'a fair export quota' were exchanged in the German transformations with 'the country' (das Land) and 'the subsidy' (der Zuschuss) respectively.

[^11]:    ${ }^{13}$ My addition.

[^12]:    ${ }^{14}$ Examples based on occurrences or non-occurrences in the BoE

[^13]:    ${ }^{15}$ Question marks are set by me as dictionaries, e.g. Cambridge Dictionaries Online (accessed March 2009), show 'thrust' as intransitive and transitive verb. However, both structures are always followed by a prepositional phrase or an adverb, e.g. "The bodyguards thrust past the crowd' or "She thrust me roughly towards the door". This was confirmed by a search in the BoE.

[^14]:    17) The Council considers this unacceptable.
[^15]:    ${ }^{16}$ The use of the genitive case is limited in English to the possessive, temporal and local genitive (Lamprecht 1973: 60). Other occurrences of the German genitive complement are often expressed in the English sentence structure by a prepositional complement with 'of' (Fischer 1997: 76)

[^16]:    ${ }^{17}$ Sometimes zero-valent verbs are analysed as monovalent where the correlate 'it' is classified as subject.
    ${ }^{18}$ Example taken from Fischer (1997: 151), my translation into German

[^17]:    ${ }^{19}$ For example, German has different passive structures which apply to different verbs.

[^18]:    31) The Commission considers the Community to have a general competence in criminal matters ...
    32) The Commission considers a proposal to ban the use of mechanically recovered meat ...
[^19]:    ${ }^{20}$ It has to be noted that this valency sentence pattern did not occur with the original 600 randomly chosen concordance lines from three different corpora, but only occurred in the analysis of the TEs. For completeness it was decided to include the pattern in table 5.4.

[^20]:    109) Today we feel ourselves obliged to intervene once again.

    109a) Today we feel obliged to intervene once again.

[^21]:    ${ }^{21}$ In the following sections it will be shown that the translation equivalent units are actually often more than one word. For example, the German multi-word unit 'HALTEN für', and not the single word HALTEN, is an equivalent of the English verb CONSIDER.

[^22]:    ${ }^{22}$ Percentage calculation based on analysis of 200 concordance lines for each verb CONSIDER and ÜBERLEGEN; a mechanical search of the whole corpus revealed roughly the same results with $2.5 \%(347: 14,241)$ and $38.6 \%$ ( $334: 865$ ) respectively. As discussed previously, mechanical searches inevitably include some mishits,

[^23]:    ${ }^{23}$ SEIN is not the only possible verb, but the most frequent. For example, the verb VERTRETEN as in 'die Ansicht VERTRETEN' is also possible.

[^24]:    27) In the resolution we have considered all the points which are important for the future.

    27-G) Wir haben alles, was für die Zukunft wichtig ist, in der Entschließung berücksichtigt.
    (Wir berücksichtigten alles.)

[^25]:    ${ }^{24} 100$ randomly chosen lines from the German monolingual COSMAS corpus showed only 20 occurrences of ERACHTEN followed by the preposition 'für', whereas in the analysed 50 lines from EuroParl 'für' occurs $24 x$ and 'als' $26 x$. EuroParl therefore seems to be slightly atypical to the common use of the verb ERACHTEN.

[^26]:    41'-G) Die Einrichtung von Rentensystemen galt uns (für uns) früher als Fortschritt auf dem Weg zu einer zivilisierten Gesellschaft.

[^27]:    ${ }^{47}$ The reflexive pronoun 'sich' is in brackets, indicating that it is grammatically not obligatory.

[^28]:    
    
     h-Soll hinaus geleistete Arbeitsstunde als Überstunde zu werten und zusammen mit den entsprechenden Sozialbeiträgen und Steuern zu vergüten <b class=normall> C:\Users \Reni\Documents\de-en\en \ep-00-05-17.txt</b>
    
    
    

[^29]:    <sub obj>

