English Abstract Nouns as Conceptual Shells

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Bernd Kortmann
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Mouton de Gruyter
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From Corpus to Cognition

Hans-Jörg Schmid

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For Susanne,
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Part I

Foundations: Theory, terminology and methodology

Chapter 1
Introduction

This study is concerned with a class of abstract nouns and their linguistic environments. Among the most typical and frequent examples are the nouns *case, chance, fact, idea, news, point, problem, position, reason, report, situation* and *thing*. From a grammatical point of view, the most striking feature of these nouns is that they can be inserted in one or both of the two grammatical patterns given and illustrated in (1.1):

(1.1) (a) Determiner + (Premodifier) + Noun + postnominal *that*-clause, *wh*-clause or *to*-infinitive
The (deplorable) fact that I have no money.

(b) Determiner + (Premodifier) + Noun + *be* + complementing *that*-clause, *wh*-clause or *to*-infinitive
The (big) problem was that I had no money.

(It should be noted that the postnominal *that*-clause in example (1.1a) must not be mistaken for a relative clause; the conjunction *that* cannot be replaced by the relative pronoun *which*). As is shown in (1.2), not all English nouns, not even all nouns that are commonly regarded as abstract nouns, can be used in these patterns.

(1.2) (a) *The boy that I had no money ...
*The democracy that I had no money ...
*The inflation that I had no money ...

(b) *The boy was that I had no money.
*The democracy was that I had no money.
*The inflation was that I had no money.

For reasons explained in detail in this and especially the next section, I refer to nouns which can be used in the two types of constructions given in (1.1) as *shell nouns*. To give the reader a first rough idea of what shell nouns are, I have collected some of the most typical and frequent examples in Table 1.1. As the Table shows, shell nouns can be categorized into six classes on the basis of their meanings.

Table 1.1 Examples of shell nouns

Class	**Examples**
Factual	*fact, thing, point, problem, reason, difference, upshot*
Linguistic	*news, message, rumour, report, order, proposal, question*
Mental	*idea, notion, belief, assumption, aim, plan, decision*
Modal	*possibility, truth, permission, obligation, need, ability*
Eventive	*act, move, measure, reaction, attempt, tradition, trick*
Circumstantial	*situation, context, place, area, time, way, approach*

Shell nouns make up an open-ended functionally-defined class of abstract nouns that have, to varying degrees, the potential for being used as conceptual shells for complex, proposition-like pieces of information. Some of them seem to be geared for this type of usage, and can therefore be seen as prototypes of the class, some are occasionally used that way, and some hardly ever so. As will be shown in greater detail in Section 2.2, nouns are not shell nouns because of some inherent property, but become shell nouns when they are used the way described above. The term shell noun is thus only a convenient shorthand for 'use-as-shell noun'.

Shell nouns have on the whole received far less attention from linguists than they deserve. Among those linguists who have noticed some of the special features of these nouns are the early modern grammarians. Both Poutsma (1929: 619-620) and Jespersen (1927: 24-26), for example, remark that the nouns *fact* and *circumstance* can be used, as Jespersen puts it, to "prop up the clause" when a *that*-clause functions as subject, or to evade "the difficulty of joining an object to certain verbs", as in *this could not conceal the fact that he was growing old*. Jespersen also mentions examples like *their belief that* and *the idea that*, adding that "some grammarians here disapprove of the term 'object' and say that the clause is appositional to the preceding substantive" (1927: 27). It is also interesting to note, especially in the light of the image of shell-content complexes used in this study, that Jespersen calls the clauses in such constructions "content-clauses" (1927: 23-32), a term which is also found in Huddleston (1984: 118-120, 263-264).

In Quirk et al. (1985), the nouns in question are mentioned in the contexts of complementation (1985: 1231) and apposition (1985: 1260-1261, 1271-1274, 1321). Quirk et al. argue that abstract nouns that are morphologically related to verbs and adjectives (e.g. *likelihood, warning, reminder,*

advice) take complements in a way which largely but not completely corresponds to their verbal and adjectival counterparts. In the section on apposition, it is claimed that not only morphologically isolated abstract nouns like *fact* and *idea* but also nouns that are related to verbs like *remark* or *answer* occur as heads of noun phrases with appositive clauses as postmodifiers. I will come back to these claims in Section 3.1.1.

Biber et al. (1999: 648-656) devote a whole section to "head nouns taking complementing clauses". Corpus findings on nouns like *fact, idea, hope, possibility* and *doubt* (which take *that*-clauses) and *chance, attempt, effort, ability* and *opportunity* (which take *to*-clauses) are provided and discussed.

In Sinclair's COBUILD grammar (1990), nouns like *statement, advice, opinion, information* and *decision* are discussed as "nouns used with reported clauses" (1990: 338), and the same nouns, as well as many others, are described in a later chapter on *Making texts* as a means of "referring back in a general way" (1990: 389-391). In another book based on the COBUILD corpus, the *Collins COBUILD English Guide 9: Linking words* (Chalker 1996), nouns like *thing, case, fact, idea* and *situation* are also described as means of establishing links that "help to bind sentences together in a text" (1990: 94; see 82-83 and 94-115). Francis (1993), who also works with this corpus, looks at nouns which can occur with "appositive *that*-clause qualifiers" (1993: 148-155). She claims that there are roughly four hundred nouns or "broad senses of nouns" (1993: 148) of this type and divides them into six classes. Her estimate as to the number of head nouns that can be combined with appositive *that*-clauses is supported by the present study, in which 350 lexemes were found to occur in the pattern in noteworthy frequencies. Francis' classification, on the other hand, will be considerably refined here, and a much wider range of nouns – nouns that take appositive infinitives and *wh*-clauses, as well as nouns which take *that*-clauses, *wh*-clauses or infinitives as complements after the copula – will be examined.

In the 1960s, the philosopher Vendler (1968: 72-82) discussed the syntax and semantics of a similar group of nouns, which he called *container nouns*, mainly with the aim of illuminating the philosophical distinction between facts and events. The basis for his image of containers was that combinations of a copula verb with nouns like *fact* or *idea* can function syntactically as containers, or *hosts*, for *that*-clauses, for example in sentences like *That he died is a fact* (Vendler 1968: 73). Menzel (1975) took up these ideas in a later phase of Transformational Grammar, which had of course also influenced Vendler, and argued that such nouns as *fact, propo-*

sition, event, action and *act* are abstract head nouns in the deep stucture of clauses, which first determine the match between predicates and types of complements and are then deleted by transformation rules. More recently, Vendler's approach was developed further by Asher, who calls such expressions as *the possibility that Mary had left without John* "noun complement constructions" (1993: 30).

The most familiar term for a closely related class of nouns in the linguistic literature is probably the notion of *general noun* (Halliday and Hasan 1976: 274-277). Yet not all of Halliday and Hasan's examples can be used in the patterns in (1.1), for example *people, person* and *creature* can not. Bolinger uses the terms *low-content nouns* (1977: 5-6) and *classifiers* (1977: 50-51) for a similar group of nouns. Like *general noun*, the former notion mainly highlights the semantic generality or unspecificity of the nouns in question. Yet although most of the nouns that can be used in the patterns in (1.1) are semantically unspecific in a certain way,[1] the emphasis on this property has unduly diverted the attention of linguists from the interesting relation between the nouns and the postnominal or complementing clauses which can frequently be found in their contexts. Bolinger's term "low-content nouns" also evokes the image of a deficient class, and therefore does no justice at all to the ubiquity and utility of the nouns.

Since the terminology in this area thus does not seem to be quite satisfactory, I would like to introduce the new term *shell noun* (already mentioned above) for the particular class of abstract nouns that I am interested in. This term is derived from the recognition that shell nouns are used by speakers[2] to create conceptual shells for complex and elaborate chunks of information. These are expressed in clauses,[3] or sometimes in longer stretches of the neighbouring discourse. More about the motivation for this term will be said in Section 2.1.

I think that shell nouns are worthy of a volume-sized study for a number of reasons. For a start, many shell nouns belong to the most frequently used nouns in the English language. For example, in a corpus of 225 million running words of British English,[4] the singular forms of the lexemes *case, fact, idea, news, point, problem, report* and *thing* are among the one hundred most frequent nouns, with frequencies of occurrence ranging from 80,013 (or 356 occurrences per million) for *thing* to 46,654 for *idea* (207 occurrences per million). In view of the finding that "by far the majority of lexical items have a relative frequency in current English of less than 20 per million" (Clear 1993: 274), these frequencies are indeed remarkable.

One reason for the frequency of these nouns is that they are surprisingly versatile and powerful linguistic and conceptual tools. A first impression of this potential can be gleaned from example (1.3), an extract from a radio programme concerned with the health policy of the British Government. The example is taken from the BBC material collected in the COBUILD corpus (see Section 4.2):

(1.3) **The Government's aim** is to make GP's more financially accountable, in charge of their own budgets, as well as to extend the choice of the patient. Under **this new scheme**, family doctors are required to produce annual reports for their patients ...

The two noun phrases that contain shell nouns (i.e. 'shell-noun phrases') are printed in bold-face types in this example, while the 'content' of the shells, i.e. what both shell-noun phrases relate to, is underlined. Essentially, the noun phrase *the Government's aim*, which occupies the subject position in the first sentence, does three things: first, it relates to the underlined passage, the group of propositions expressed in the two coordinated complementing infinitive clauses and the appositive clause attached to the first of them; second, it characterizes this information as an *aim*, i.e. as something the British Government wants to achieve; and third, it casts this complex piece of information into one single noun phrase.[5] This is mainly achieved by the equative relation evoked by the copula *is*. The speaker uses this relation between a clause and a nominal shell to help the hearer keep the gist of the information active and to re-activate it if this should be required as the discourse unfolds.

In the second sentence the speaker uses the noun phrase *this new scheme* as a signal for precisely such a re-activation. Since the same information is activated, the clause-initial noun phrase in subject function can thus be regarded as given information. However, the speaker provides it with a different conceptual shell. By using the noun *scheme*, rather than just repeating the noun *aim*, it is conveyed that the intended achievements have already been outlined in a fairly concrete and detailed form. This characterization is included in the meaning of the noun *scheme*. Since noun phrases allow for the possibility of premodification, the speaker can easily and economically add the information that the *scheme* is *new*, before he or she goes on to enlarge on some of the details that are involved. In short, the speaker uses the anaphoric demonstrative *this* to link the second shell noun *scheme* to the information expressed in the previous sentence, and the whole shell-noun

phrase to modify and characterize it in a particular way. The fact that given information is taken up as a starting-point for the second sentence contributes considerably to the impression that the passage is about one topic and therefore coherent, but also helps the speaker to get on with what he or she is trying to say about it.

It is essentially this linguistic and conceptual process that I want to capture by calling the nouns in question *shell nouns*, and the noun phrases in which they occur *shell-noun phrases*. Shell nouns and shell-noun phrases can only be studied appropriately if what they link up with is taken into account. This means that I will generally be concerned with *shell-content complexes*, rather than just the nouns alone. However, since it would be cumbersome to speak of *shell-content complexes* all the time, the terms *shell nouns* and *shell-noun phrases* will be used with the tacit understanding that their communicative impact always depends on their occurrence in shell-content complexes.

It is important to emphasize even at this early stage that it is always the speaker of an utterance who characterizes some piece of information by choosing a particular shell noun and modifier. Instead of using the fairly neutral nouns *aim* and *scheme* the speaker of (1.3) could have emphasized that the government is struggling hard to introduce these changes by using such shell nouns as *endeavour* or *effort*; he or she could have stressed the necessity and importance of these changes by using the nouns *need* or *obligation*, or could have introduced emotional aspects by using such shell nouns as *wish* or *desire*. Another possibility would have been to use an evaluative shell-noun phrase such as *the Government's problem* in order to highlight that difficulties are involved. The ease with which different nouns can be inserted into this context shows how shell nouns provide speakers with powerful tools for the characterization, perspectivization, and indeed even manipulation, of their own and other speakers' ideas. Especially politicians and other people with debating experience are proficient in characterizing their own ideas as *facts, truths, advantages, important points* and *central issues*, while characterizing the ideas of their opponents as *theories, hypotheses, problems, questions* or *dangers*.

Yet another reason why shell nouns deserve a thorough investigation is the ubiquity, especially in informal spoken conversation, of such seemingly awkward expressions as ***the thing is*** *that these children for instance are badly behaved ones usually* (SPOKEN CONVERSATION, COBUILD). Similar "utterance launchers" or "ouvertures" (Biber et al. 1999: 1073-1076) are *the problem is (that), the trouble is (that), the fact is (that)* and *the truth is*

(that). Since the noun phrases introducing such clauses are more or less redundant from a purely propositional point of view, it is definitely worth trying to find out what the reasons for their high frequency of occurrence are. As will emerge in Sections 7.2 and 16.1, pragmatic, rhetorical and information-distributional aspects like focusing and topicalizing play an important role here.

I will look at shell nouns, shell-noun phrases and shell-content complexes from various perspectives in this study:

a) Theoretical and methodological perspectives: How can shell nouns and shell-content complexes be defined, and how can they be investigated systematically?
b) Descriptive perspective: Which nouns do speakers use as shell nouns and what types of shell-content complexes do they create?
c) Functional perspective: What are the semantic, pragmatic, rhetorical, textual and cognitive motivations for using shell nouns, and why do we use some of them so frequently?

This study falls into three major parts which try to provide answers for these three questions in turn. In the remainder of Part I, I will first explain the metaphor underlying the concept of shell noun (Section 2.1), and then put forward a functional definition of shell nouns and shell-content complexes (2.2). In Chapter 3, the types of linguistic links that are used by speakers to trigger a co-interpretation of shell nouns and their contents are examined. Chapter 4 contains an account of the method used for the investigation of shell-content complexes. It is this method which motivates the title of this book, *From Corpus to Cognition*. Part I closes with an attempt to clarify the role played by the notions of abstractness and unspecificity, which are seen as essential semantic prerequisites for the successful use of shell nouns.

Part II is devoted to a detailed description of the use of shell nouns and shell-content complexes. In Chapter 6 some necessary linguistic tools are introduced. Chapters 7 to 12 contain the descriptive core of the study, which is divided into six classes of shell-noun uses.

Although pragmatic aspects are taken into account throughout Parts I and II, it is in Part III that the pragmatic perspective takes centre stage. Semantic, pragmatic, rhetorical and textual, as well as cognitive functions of shell-content complexes will be examined in Chapters 15 to 17.

Chapter 2
Approaching shell nouns

2.1 The term *shell noun*

Although it is true that abstract nouns have not been very popular as objects of linguistic research, this is of course not the first study that is concerned with shell nouns or similar types of nouns. Other researchers have taken an interest in nouns which overlap with the class of shell nouns or form a subgroup of them. Their selections of nouns and their choices of names for them reflect their predominant interests, and it will be helpful to have a look at these before I explain and justify my own choice of terminology in more detail.

One group of authors already referred to have focused on the semantic generality or unspecificity (see also Section 5.2) of such nouns as *fact, idea* or *thing*. In addition to Bolinger (1977) and Halliday and Hasan (1976), Winter (1992) must be mentioned here, who uses the term *unspecific nouns*. Although semantic unspecificity is also highlighted by Halliday and Hasan's term *general noun* (1976: 274) for such nouns as *people, person, creature, thing, object, stuff, affair, matter, move, place, question* and *idea*, it is well known that Halliday and Hasan's main interest is the contribution of these nouns to the cohesion of texts.[6]

This aspect is also the focus of Francis' (1986) notion of *anaphoric nouns* (or *A-nouns* for short). Francis uses this term to refer to nouns which can function as anaphoric pro-forms, can be used "metadiscursively" within a discourse and "are presented as the given element within a clause containing new information" (1986: 7). Building on work by Winter (1977: 2) and Hoey (1979) on *lexical signalling*, Francis supports this function with the image of signposts: *A-nouns* are linguistic signposts which signal to the reader that the specific information can be found somewhere else in the text (1986: 2). Among the nouns that meet these criteria are nouns derived from speech act verbs, e.g. *accusation, claim, comment, conclusion, declaration, judgement, report* and *suggestion*, other nouns describing verbal activities, e.g. *controversy, critique, eulogy, implication, nonsense* and *paradox*, and metalinguistic 'text' nouns such as *chapter, excerpt, phrase,*

quotation and *word*. Also included are 'cognition' nouns (1986: 14-16), for example *analysis, concept, doubt, idea, inference, perspective, view* and *viewpoint*. So-called 'ownerless' nouns such as *aspect, context, fact, issue* and *problem* are seen as borderline cases with regard to the criterion of metadiscursivity, while *cause, development, move, process* and *result* are not treated as *A-nouns* because they do not fulfill this criterion. To give an early impression of what is included in the class of shell nouns, it will be helpful to note that with the exception of metalinguistic 'text' nouns, all examples quoted in this paragraph can be used as shell nouns.[7]

In Germany, the textual functions of abstract nouns were also recognized very early. Krenn (1985: 133-138, 212-224), for example, draws attention to the metacommunicative and anaphoric potential of English abstract nouns. Chiefly interested in the items *this, that* and *it* in extended reference, she also discusses anaphoric noun phrases headed by general nouns like *thing, matter, point* or *question* as *lexikalische Verweise* 'lexical references'. The earliest account of the textual function of abstract and general nouns that I am aware of can be found in Raible (1972). Writing about French and German abstract nouns, Raible speaks of *Wiederaufnahme auf Abstraktionsebene* 'reiteration on an abstract level' and *Wiederaufnahme auf metasprachlicher Ebene* 'reiteration on a metalinguistic level' (1972: 150-151) and argues that nouns like *case, process, manner* and *condition* should play an important role in any theory of texts. Much more recently but also in German, Koeppel (1993) discusses what he calls *satzbezogene Verweisformen* 'sentence-related forms of reference'. Koeppel's study is interesting and illuminating, because he also takes an empirical and functional approach and works with different text-types. It is less helpful for the present study than it could be, however, because Koeppel (1993: 43) explicitly excludes cases in which shell nouns and shell contents (in my terminology) are connected by structural means.

As noted in Chapter 1, Vendler exploits the container-image in his study of nouns denoting facts and events. Nouns like *fact, result, reason, cause, axiom* and *idea* are understood as *container nouns* (1968: 72-82) because they can act as central parts of clauses which function as containers, or hosts, for other nominal clauses (see also Vendler 1967: 122-146). Two of Vendler's examples are "That he died is a fact" (1968: 73), where the noun *fact* (together with the copula *is*) acts as a container for a clause, and "It is an axiom that all men are equal" (1968: 77), a case of extraposition involving an abstract noun, which Vendler sees as another variant of a container noun structure.

Ivanič (1991), who speaks of *carrier nouns*, exploits a related image. Apparently the term *carrier* has a double motivation in Ivanič's paper. On the one hand, she argues that the nouns in question "frequently *carry* a specific meaning within their context in addition to their dictionary meaning" (1991: 95; my emphasis). On the other hand, the term *carrier* is used to underline the affinity to Halliday's Systemic-Functional Grammar, where the term *Carrier* is used to refer to the subjects in one of two types of clauses which express relational processes (Halliday 1994: 120-122).[8]

Halliday himself also deals with nouns that can function as shell nouns. They crop up in his discussion of "projections", i.e. constructions in which "a clause comes to function not as a direct representation of (non-linguistic) experience but as a representation of a (linguistic) representation" (1994: 250). According to Halliday, "nouns that project belong to clearly defined classes" (1994: 263), a rather categorical claim which does not receive support from the present study. As the quotation indicates, Halliday looks at the way these nouns occur from the grammatical rather than the lexical perspective. What he regards as projections involving nouns are "embedded projections", i.e. the grammatical pattern noun + postnominal *that*-clause, infinitive clause or gerund (in traditional terminology). As a consequence of this focus, he overlooks the fact that the particular nouns that can occur in these constructions ("function as Things in embedded projections") share other properties, most notably the capacity to occur in other frequently recurring grammatical patterns, and a number of highly interesting linguistic and cognitive functions (see Part III).

In a second paper Francis (1994) uses the term *label* for a group of nouns which largely overlaps with her earlier set of *A-nouns*. Her new choice of terminology reflects the recognition (already present in her 1986 study) that such nouns as *argument, point* or *statement* are used to label stretches of discourse in a certain way. A second important property of both *A-nouns* and *labels* is the potential to "encapsulate", as Francis (1986: 36-38, 1994: 85) calls it, stretches of discourse. The image of encapsulation, which is taken over from Sinclair (1981: 76), corresponds to my idea that shell nouns create conceptual boundaries by casting larger chunks of information into nominal structures.

The image of encapsulation is also taken up by Conte (1996). Although Conte's article is very short, it provides many fundamental insights into the use and functions of encapsulating nouns. The fact that there is a close correspondence between the points mentioned by Conte and what I have been

able to find out about shell nouns independently before I became aware of her work supports the findings of this study.

Looking at the collection of terms and the different images underlying such notions as containment, signalling, pointing and encapsulating, I think that with a little stretch of imagination the shell metaphor incorporates all these aspects. Clearly, one of the main functions of shells in the real world is to contain something, to act as host and shelter for things that would otherwise easily be dispersed or damaged. This encapsulating function seems to be particularly important if one starts to switch over to the linguistic domain, which the metaphor of shells is to illuminate. Discourse without shell nouns can be compared to an egg-and-spoon race using eggs without shells. One would not be able to get on in discourse (and in the race), if it were not for the encapsulating function of shell nouns (or egg shells). In other words, shell nouns can supply propositions with conceptual shells which allow speakers to grab them and carry them along as they move on in discourse. Shells also act as signals for their content. Looking at various types of shells, say an egg shell, a nutshell, a snail shell and the shell of a mussel, one always knows what type of thing is inside. In the same way shell nouns also function as labels for their content, as indicators of what they contain.

2.2 Defining shell nouns and shell-content complexes in functional terms

Analogies such as the metaphor of shells may help to explain abstract notions but they must not be misused as substitutes for definitions. If one looks at the publications by Francis (1986 and 1994) and Ivanič (1991), who have provided the most detailed accounts so far of the phenomena in question, one finds that both authors seem to struggle with the definition of their subject-matter. Why are *A-nouns, carrier nouns* and *shell nouns* so hard to define? The reason is that they are not defined by inherent properties but constitute a functional linguistic class. This means that whether a given noun is a shell noun or not does not depend on inalienable characteristics inherent in the noun, but on its use. A noun is turned into a shell noun when a speaker decides to use it in a shell-content complex in the service of certain aims. The property of shell-nounhood is thus a functional property. The right way of thinking about shell nouns is as particular types of uses of certain nouns, rather than as *shell lexemes* in their own right.

This functional definition of shell nouns has a number of fundamental consequences. First, the list of shell nouns given in Table 1.1 in Chapter 1 is actually quite misleading because it suggests that these nouns **are** shell nouns as such, whereas in fact they are only nouns that are very frequently used as shell-nouns. Second, it is impossible to give an exhaustive list of shell nouns because in suitable contexts, many more than the 670 nouns discussed in this study can be found in shell noun uses. As will be explained in Section 4.2, the choice of nouns that will be considered here is based on objective syntactic criteria. Finally, the class of shell nouns is highly heterogeneous, both from a semantic point of view and with respect to how good an example of shell-nounhood a given use of a noun is (see Section 6.1 for a discussion of the typicality gradient in the class of shell nouns). The typicality gradient of shell nouns also affects the boundaries of the class, which are fuzzy rather than clear-cut. It will be seen in Chapter 12, for example, that although circumstantial nouns like *time, place* and *way* can indeed function as shell nouns, they mark a transition zone between shell noun uses and other uses of nouns.

What, then, are the functions that define uses of nouns as shell nouns? What do the nouns allow speakers to do? A whole array of more or less specific functions will be identified in Part III. Three functions, however, stand out from the rest because they can be seen to play a role in all uses of shell-content complexes. As a consequence, these three can be used to define the functional class of shell nouns:

1. Shell nouns serve the semantic function of *characterizing* and perspectivizing complex chunks of information which are expressed in clauses or even longer stretches of text.
2. Shell nouns serve the cognitive function of *temporary concept-formation*. This means that they allow speakers to encapsulate these complex chunks of information in temporary nominal concepts with apparently rigid and clear-cut conceptual boundaries.
3. Shell nouns serve the textual function of *linking* these nominal concepts with clauses or other pieces of text which contain the actual details of information, thereby instructing the hearer to interpret different sections of a text together (see Section 3.1.2).

In view of the fact that many linguistic items have the potential to characterize, form concepts and/or link pieces of text, it must be emphasized that shell nouns fulfill these functions in a very special way. In order to demon-

strate this, it will be helpful to compare shell nouns to full-content nouns on the one hand, which can be seen as best examples of characterizing and concept-forming linguistic items, and to anaphoric elements such as the personal and demonstrative pronouns on the other, which are arguably among the best examples of nominal linking items. The idea for this comparison originates from Ivanič (1991), but the dimensions used as criteria are my own. Examples of the three types of words are given in (2.1):

(2.1)	(a) Full-content nouns:	*teacher, cat, journey*
	(b) Shell nouns:	*fact, problem, idea, aim*
	(c) Pronouns with anaphoric function:	*she, it, this, that*

Characterization

Full-content nouns have an enormous potential for detailed characterizations of what speakers want to talk about. The reason is that nouns like those listed in (2.1a) have a more or less stable and rich denotation. Due to their specific and fully-fledged meaning, full-content nouns and other open-class items such as adjectives and verbs are the main means of describing persons and objects, animals and plants, activities and events, and properties and circumstances.

Pronouns with anaphoric function, on the other hand, have a very limited potential for characterization, if any at all. The personal pronouns *I, you, he, she, it, we, they*, for example, characterize their referents only with respect to a very small number of semantic dimensions: speaker vs. addressee vs. other role, human vs. non-human, singular vs. plural, and male vs. female. The demonstratives *this* and *that* characterize a piece of experience only with regard to the dimensions of spatial (and/or emotional) proximity and singular number.

Shell nouns hold a middle position between these extremes. To a certain extent, speakers can indeed use them to characterize a piece of experience, say as a *fact,* a *problem,* an *idea* or an *aim.* Like full-content nouns, shell nouns derive their potential for characterization from their denotation. The nouns stand in a relatively stable relation to a recurrent type of experience, just like the noun *cat* stands in a stable relation to a category of entities in the concrete world. Yet, as will be shown in detail in Chapter 5, nouns that can be used as shell nouns typically have abstract and unspecific meanings. As a result, speakers can only use them to characterize a piece of their experience in a fairly general way, while the details of information must be

expressed as shell content in the context. For example, when a noun like *aim* is used, the meaning of the noun itself includes no information about the precise details of what somebody is aiming for. In this respect, shell nouns are similar to anaphoric pronouns which depend on contextual information for their interpretation.

Concept-formation

When a word is used repeatedly to refer to a certain type of experience, the recurrent association between the linguistic form and the idea results in the formation of a more or less stable concept. Essentially, the resulting conceptual relation corresponds to Saussure's model of the sign. It is with the process of establishing this relation in mind that Leech (1981: 32) speaks of the "concept-forming power of the word".

Nouns denoting classes of persons, animals, organisms and concrete objects lend themselves readily to the formation of concepts. On the basis of a naive view of the world, which corresponds to the philosophical position called "realism" by Lyons (1977: 109-114), we tend to think that words are no more than names for categories of things. Given the apparent similarity of the things that belong to one category of concrete individuals, this idea comes so naturally that the role of words in the formation of concepts is hardly noticeable. The way in which words contribute to the formation of concepts can be illustrated better with nouns denoting abstract entities and with nouns denoting events, for instance a noun like *journey* (cf. Leisi 1975: 26). The naive view of words suggests that there is a class of experiences which exists readily packaged somewhere out there and is simply named by the word *journey*. A closer examination, however, shows that what can be referred to by the word *journey* is a fairly complex matter. It can involve many different actions such as checking in at an airport, sitting in car, on a coach or train, walking through the jungle or hitching a lift somewhere in the middle of nowhere. It is not even easy to define when a journey starts and where it ends. If you travel from your home to another city, does your journey start when you leave your house, when you step into a taxi or when you board the train at the railway station? Despite the variety of experiences that can be referred to as a *journey* and the vagueness of the boundaries of journeys, the word *journey* gives us the impression that there is one neatly bounded class of entities or experiences which we have in mind whenever we use it. But this is of course not the case.

Nor is it the case with more abstract words such as *love, inflation* or *democracy*. Again, the words suggest that there are things existing inde-

pendently of the human mind, which are simply named or labelled by the words *love, inflation* and *democracy*. But yet again, this is an illusion. What people talk about when they use the word *love* can be a large variety of different types of experiences with an enormous range of different manifestations, and the same is true of the notions of *inflation* and *democracy*. Nevertheless we tend to think that the words *love, inflation* and *democracy* stand for ready-packaged, autonomous, even almost substantial entities (witness the frequent personifications, particularly of the first item).

In short, the notion of concept-formation really captures a combination of two illusions: first, that a word stands for one single entity which is neatly bounded, and second, that this neatly bounded entity has a thing-like quality with a substance of its own. It refers to the combined illusion of encapsulation and reification.[9]

Although all types of open-class words contribute somehow to the formation of some kind of concepts, the concept-forming power of words has its strongest effects with nouns. The most prototypical examples of nouns, namely nouns denoting classes of concrete entities, refer to things. As a consequence, they lend themselves much more readily to a conceptualization of what they stand for as 'things' and this greatly encourages the illusion of reification. But even nouns denoting abstract entities, relations or properties are affected by this illusion. For example, the adjective *round* evokes a property of things, i.e. a relational concept, while the derived noun *roundness* seems to evoke a 'thing'. Similarly, the verb *assume* stands for a mental process, while the derived noun *assumption* again seems to stand for a 'thing'. This recognition forms the basis of Langacker's cognitive conception of word classes (1987a: 183-213, 1987b), and it will emerge that it also plays an important role for the issue of shell nouns (see Sections 5.1.2 and 17.2).

How do the three types of linguistic elements behave with regard to concept-formation? Disregarding such phenomena as polysemy and vagueness, we find that full-content nouns have a relatively constant relationship to the experience they encapsulate as a concept. This is due to their stable denotation. Although we know at least since Labov's work (1973, 1978) that the boundaries of categories of concrete entities are fuzzy, his experiments have also shown that such categories do have conceptual boundaries and that they are relatively strong, too.

Deictics, on the other hand, exhibit virtually no such concept-forming effects. Personal pronouns stand in for other instantiations of concepts which are explicitly mentioned elsewhere. And demonstratives functioning as de-

terminers with nouns specify the reference of particular expressions. Neither contribute to the formation of a concept. When the pronouns *it, this* or *that* are used in extended reference or text reference (Halliday and Hasan 1976: 52-53, 66-67), for example in utterances like ***it** helped a lot* or *I didn't say **that***, it is also impossible to regard them as instantiations of stable concepts. Whatever it is that is being referred to is not bounded as a concept stored in the mental lexicon. Instead, the semantic impact of such anaphora is completely context-dependent.

Again, shell nouns stand between the two opposing poles. Like full-content nouns, they exhibit a constant conceptual relationship to a specific recurrent type of experience, to problems, opportunities, reasons, facts and so on. And, being nouns, they create the impression that the types of experiences they encapsulate as concepts are 'things' or, more precisely, instances of classes of 'things'. On the other hand, the concepts created by shell nouns are also very variable. They are of a temporary nature because their content changes with the situational and linguistic context[10] in which they are used. So the concepts created by shell nouns consist of a stable symbolic and a variable indexical part.

Linking

Pronouns with anaphoric function are among the best examples of nominal linking elements because they instruct hearers to interpret two groups of linguistic elements together, as being related to and even dependent on each other. One can observe such links in their clearest form in cases of anaphoric personal pronouns, which have been thought of as creating links of referential identity or co-reference (cf. e.g. Halliday and Hasan 1976: 309).

Viewed in isolation, full-content nouns have hardly any potential to create cohesive links (apart from the semantic relations described by Halliday and Hasan (1976: 274) as *lexical cohesion*; see also Hasan 1984 and Hoey 1991). Because of their more or less specific denotation and the resulting potential for characterization, full-content nouns are better suited for exophoric reference to the world outside a text.

With regard to linking, shell nouns are more similar to anaphora than to full-content nouns. Like anaphora, shell nouns cannot thrive without textual links. Their interpretation crucially depends on the shell content which must be expressed in the context, or at least be inferrable from it. I will show in Section 3.1.1 that the links between shell nouns and their contents are usually supported by specific lexico-grammatical patterns, and in Section 5.2

that the semantics of the nouns themselves require these links and contribute to a large degree to their establishment.

In sum, shell nouns seem to be a unique linguistic phenomenon for two reasons. First, they combine the three functions of characterization, concept-formation and linking, which are otherwise performed separately, each by different types of linguistic elements. And second, they perform these functions in a fine-tuned balance between conceptual stability and informational flexibility. These two aspects, the combination of functions on the one hand, and the balance between opposing poles on the other, are illustrated in Figure (2.1).

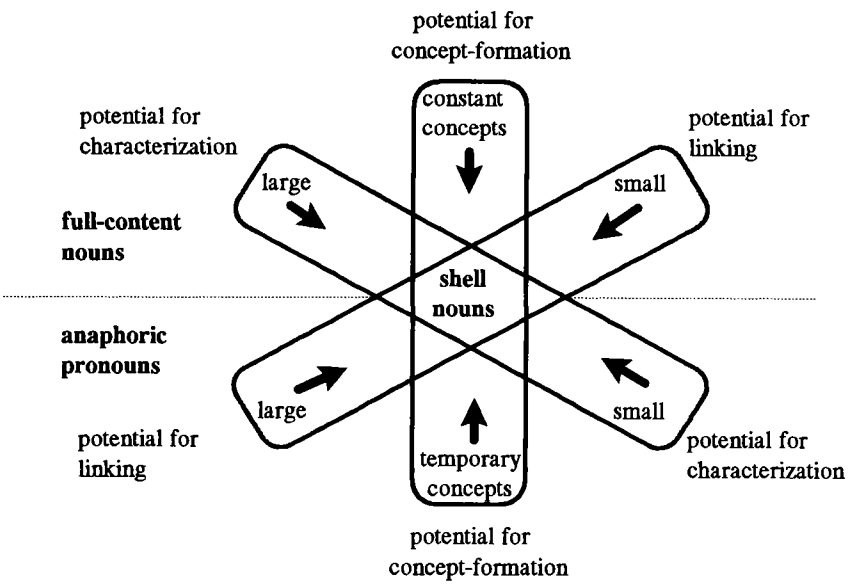

Figure 2.1 The converging balance of shell nouns

The figure suggests that shell nouns hold a central position on the dimensions of stability of evoked concept, potential for characterization and potential for linking elements in a text. These functional properties are greatly facilitated by the type of semantic structure that is unique to shell nouns (see Chapter 5). It is this combination of stability and flexibility that turns shell nouns into such powerful communicative and cognitive tools.

The term *shell noun* is employed in this study to refer to uses of nouns which meet the combination of criteria laid down in this section. However,

as will be shown in greater detail in Chapter 5, certain types of nouns lend themselves more readily and regularly to such uses than others. I will use the term *shell noun* with an intended and systematic ambiguity: for nouns (qua *lexemes*) which have the systemic, *langue*-related potential to fulfill the specific combination of functions described here, as well as for actual uses of these nouns in these functions, i.e. *parole* phenomena. The fact that shell nouns always occur in the functional units of *shell noun phrases*, which may even include the shell contents as postmodifying clauses, is taken for granted. I will also use the derived verbal expression of *shelling* a piece of information. Thus by saying that the noun phrase *the Government's aim* in example (1.3) *shells* the information expressed in the complementing infinitive clause, I want to convey that the noun phrase is linked to this clause, characterizes the information given in it as an aim, and achieves that this information is temporarily turned into a context-dependent concept with a thing-like quality.

2.3 A brief note on the theoretical stance

This study is not consistently set within a single theoretical framework. As has already emerged from the considerations and arguments put forward so far, the underlying view of language is cognitive and pragmatic.

On a very general level, this means that I assume that questions like "Can the use of shell nouns be explained on the basis of general cognitive abilities?", "How are expressions involving shell nouns processed?" and "Why are expressions involving shell nouns used?" are interesting and worth pursuing, and that arguments like "shell nouns and shell contents activate components of one cognitive model" or "we use shell nouns because they help us to draw attention to certain aspects of events and states of affairs" are legitimate. The theoretical stance is eclectic rather than monolithic, mainly in order to avoid lengthy theoretical introductions and justifications which would be indispensable if one theory were chosen as a basis. The method builds on the ideas and achievements of corpus linguists. The grammatical framework and terminology are taken from 'traditional' descriptive grammar unless Cognitive Grammar (see Langacker 1987a, 1991) or Systemic-Functional Grammar (see Halliday 1994) provide more appropriate concepts or terms. The semantic descriptive apparatus consists of semantic features similar to those used in structural semantics and of frames as used in cognitive semantics.

Chapter 3
The links between shell nouns and contents

This chapter looks more closely at a number of syntactic, semantic and pragmatic aspects of the links between shell nouns and shell contents. In Section 3.1.2, I will argue that a relation which I call *experiential identity* constitutes the semantic and cognitive basis of the four major linguistic means of linking shell nouns to their contents. Since one of these links, the combination of a shell noun with a postnominal clause representing the shell content, exhibits highly conspicuous similarities to the complementation of verbs and adjectives, the linguistic literature on the latter issue will be sieved for relevant findings in Section 3.2. Finally, Section 3.3 provides a brief account of the basic functions that can be attributed to the links described in Section 3.1.1. Although functional considerations will take centre stage in Part III, this basic account will prove to be useful in the descriptive second part as well.

3.1 Triggering co-interpretation

3.1.1 Lexico-grammatical patterns of shell-noun uses

It is vital for the communicative success of shell nouns that they are interpreted together with their content. Speakers trigger such a *co-interpretation*[11] by means of a fairly small number of linguistic devices. The lexico-grammatical patterns they use to link shell nouns to their contents and the semantic relations underlying them will be discussed in this section.

My previous research into the use of one typical example of a shell noun, the noun *idea* (Schmid 1993: 165-219, 1997) and my long-standing interest in other shell nouns suggest that these nouns are mainly used in four types of lexico-grammatical patterns. These are given in Figure 3.1 and illustrated by short examples taken from the COBUILD corpus. In the middle column of the table, abbreviations both for the four general patterns and their more specific variants are introduced, which will be used in the rest of the study.

Pattern	**Abbreviation**	**Example of the general pattern**
Shell noun + postnominal clause	N-cl	(3.1) Mr Bush said Iraq's leaders had to face **the fact** that the rest of the world was against them. (BBC)
Variants: *that*-clause	N-*that*	
to infinitive-clause	N-*to*	
wh-clause	N-*wh*	
Shell NP + *be* + complementing clause	N-*be*-cl	(3.2) **The advantage** is that there is a huge audience that can hear other things you may have to say. (PAPERS)
Variants: *that*-clause	N-*be-that*	
to infinitive-clause	N-*be-to*	
wh-clause	N-*be-wh*	
Referring item + (premod) + shell noun	*th*-N	(3.3) (Mr Ash was in the clearest possible terms labelling my clients as anti-semitic.) I hope it is unnecessary to say that **this accusation** is also completely unjustified. (PAPERS)
Referring item as subject + *be* + shell noun (phrase)	*th-be*-N	(3.4) (I won the freshmen's cross-country. – Mm.) That was **a great achievement** wasn't it? (SPOKEN)

Note: The abbreviations of the corpus sections, i.e. BBC, PAPERS and SPOKEN, which are also used in all further examples, are explained in Section 4.2.

Figure 3.1 Lexico-grammatical patterns favoured by speakers for the use of shell nouns

For the last three of these patterns, the syntactic structures and the mappings of clause constituents on shell nouns and shell contents are fairly straightforward. In the pattern N-*be*-cl, the shell-noun phrase occurs as subject in a SVC-clause with the linking verb *be*, in which the shell content is embedded as a *that*-, *wh*- or infinitive clause functioning as subject complement (the respective abbreviations are N-*be-that*, N-*be-wh* and N-*be-to*). In the pattern *th*-N, the link between shell noun and shell content is created by the potential of a number of linguistic elements, mainly *the, this, that, other, same* and *such*, to establish demonstrative or comparative anaphoric reference (Halliday and Hasan 1976: 57). In this pattern, the shell-noun phrase can fulfill various syntactic functions. In the pattern *th-be*-N, the

link between shell noun and shell content extends over three groups of elements. The pronouns *this, that* or *it* mediate between the passage of text which actually expresses the shell content and the shell noun. These pronouns occur in the subject position at the beginnings of SVC-clauses and refer back to the shell contents by means of what Halliday and Hasan call "extended reference", "text reference" or "reference to fact" (1976: 52-53, 66-67). They transfer this reference via the linking verb *be* to the shell noun phrase which functions as subject complement in the clause structure. In a way, then, the pattern *th-be*-N is a blend of the copular type N-*be*-cl and the anaphoric type *th*-N.

The syntax of the pattern N-cl, i.e. the combination of an abstract head noun and a following *that*-clause (N-*that*), *to*-infinitive (N-*to*) or *wh*-clause (N-*wh*), is much less straightforward. What is clear is that the postnominal clauses express the shell contents in these patterns. The syntactic relations between these clauses and the head nouns, however, and the syntactic status of the clauses in particular, are all but clear. Their analysis depends on two factors: the grammatical framework applied and the type of noun that occurs as head noun. As already mentioned in Chapter 1, Quirk et al., for instance, regard both *noun complements* and *appositive postmodifiers* as possible functions of the clauses. Thus they give *the likelihood that Joan will get married* (1985: 1231) as an example of "noun complementation" and the highly similar expression *the belief that no one is infallible* (1985: 1260) as involving an appositive postmodifying clause. This may seem somewhat paradoxical, especially if one thinks of complements as giving necessary, and of appositions as giving non-necessary, additional information, as many linguists have traditionally done. It must be added, however, that Quirk et al. (1985) allow for cases of *restrictive* appositive clauses.

While Biber et al. (1999: VIII) explicitly state that they have borrowed "the grammatical framework of concepts and terminology" from Quirk et al. (1985), they do not mention the possibility of treating the clauses following abstract head nouns as appositive postmodifiers. Instead they consider all examples of the type *the idea that he was completely cold and unemotional* and *a chance to do the right thing* (Biber et al. 1999: 575) to be complement clauses, which, according to them, "are distinct from postmodifiers in structure and meaning" (ibid.). They argue that "complement clauses differ from postmodifying clauses in that they do not have a gap corresponding in meaning to the head noun" (1999: 645), which is for example filled by relative pronouns in relative clauses. As a result, complement clauses can stand on their own as independent clauses, while post-

modifying clauses can not. However, this apparently simple test runs into difficulties with *to*-clauses following abstract head nouns, because these, as Biber et al. (1999: 645) admit, have missing subjects just like postmodifying *to*-clauses and can only be separated from the latter on semantic grounds. According to Herbst (1988: 269), who, like Hudson (1984: 263-264) and linguists from the transformational paradigm (see e.g. Radford 1997), also works with the notion of noun complementation, there are two criteria for determining the status of complements: the existence of co-occurrence restrictions between the complement and the noun, and the dependence of the form of the complement on the noun. My own impression is that even when these criteria are applied, a strict general separation between postmodifiers and complements is impossible if one considers the whole range of possible sequences of abstract nouns followed by clauses. Therefore I use the neutral term *postnominal clause* in this study.

A brief overview of the possible types of postnominal clauses will be in order here. To start with, there is a superficially similar construction involving the so-called extraposition of a clausal subject and the insertion of an anticipatory subject *it*. This is illustrated in example (3.5):

(3.5) But it is **a good idea** to stop and think about it. (PAPERS)

In such sentences, there can be no doubt that the clauses representing the shell contents do not belong to the noun phrases which are headed by the shell nouns. Instead they make up the notional subjects of the clauses, which are moved to the end of the sentences. This can be demonstrated by transforming (3.5) into (3.5'):

(3.5') To stop and think about it is a good idea.

For many shell nouns, these "canonical" patterns (Quirk et al. 1985: 1392) are less common than the postponed ones. What the transformation in (3.5') shows is that such uses are similar to the patterns N-*be*-cl and *th*-*be*-N in that they also revolve around the copula *be*. In fact, they can be seen as variants of the pattern *th*-*be*-N, in which the shell contents are not taken up by an anaphoric pronoun but mentioned explicitly in the same clause.

A related pattern, especially from a pragmatic and rhetorical perspective, is the existential-*there* construction, which is illustrated in (3.6):

(3.6) Agnelli is due to step down soon as head of Fiat and already there is **speculation** that he might move into politics. (MAGS)

Such sentences can also be traced back to canonical intensive clauses but, as in this particular example, transformations are usually only possible if one introduces a definite article. The resulting paraphrase is given in (3.6'):

(3.6') The speculation is that he might move into politics.

These examples are not particularly good examples of shell-content complexes because indefinite noun phrases do not create as strong conceptual boundaries as the definite noun phrases in which shell nouns tend to occur. Since these existential-*there* constructions typically involve nouns that are morphologically related to verbs, there is a second parallel, the parallel to verbs with complement clauses. A paraphrase of (3.6) along these lines is given in (3.6"):

(3.6") ... and people are already speculating that he might move into politics.

Similar affinities to simple verbs can be observed with occurrences of nouns in so-called "expanded predicates" (Algeo 1993), which consist of function verbs like *have* or *make* and nouns. Typical collocations of this type are for example *have the idea/ feeling/impression that, have the job/ task/duty to*, but also the more specific *express relief/regret/concern that.* While these combinations of expanded predicates with *that*-clauses and infinitives obviously resemble the pattern N-cl and thus support the idea that the clauses following them must be seen as complements, they differ in one important respect. The effect of the temporary formation into a nominal concept is not very marked here because the whole expanded predicates function as verbs and can normally even be replaced by simple verbs. Often the motive for their use is only a stylistic one (see Section 5.1.2). These uses can therefore not be regarded as good examples of shell nouns either.

In combinations of nouns with adjacent infinitive clauses, the analysis of the clauses crucially depends on the nouns. With modal nouns like *ability, chance, intention, need, opportunity* or *willingness* the analysis of the postnominal clauses as complements, rather than postmodifiers, is most convincing since the nouns seem to determine the fom of the complements. Difficulties arise with nouns which have no inherently modal meaning, for example with temporal or locative nouns. Example (3.7) is a case in point.

(3.7) Britain is **a great place** to live and work in ... (MAGS)

Traditionally the infinitive clauses in such examples as (3.7) have been traced back to relative clauses, as is reflected in the paraphrase given in (3.7').

(3.7') a great place in which/where it is possible to live and work

Examples of this type are therefore also treated as highly marginal instances of shell nouns (see Sections 6.1 and 12.1).

Finally, there is a transition zone between complementing or appositive, relative and adverbial postnominal clauses in examples like (3.8) and (3.9), which consist of nouns with circumstantial meanings and postnominal *wh*-clauses:

(3.8) The lists of Indonesian communists were compiled by the CIA and State Department over two years, at **a time** when Washington believed that there was a real threat that southeast Asia would fall under communist rule. (BBC)

(3.9) Is there **any place** where you can go and play snooker or anything like that? (SPOKEN)

Cases of this type tend to be analysed as variants of relative clauses as well. Biber et al. (1999: 626-630), for example, treat them as "head nouns taking relative clauses with adverbial gaps". I will return to the syntactic analysis of such examples when I look at circumstantial uses of shell nouns (see Sections 12.1 and 12.3).

This closes the discussion of the pattern N-cl. A fifth pattern that is not included in Figure 3.1 is the combination of abstract head nouns with post-modifying *of*-prepositional phases, as in *the problem of raising money*, *the idea of going out* or *the question of where to go*. For two reasons, this fifth pattern is not treated on a par with the other four. For one thing, it is restricted to a much smaller group of nouns than the other four patterns. And secondly, as will be shown in Section 4.2, this pattern does not lend itself as readily as the others to the computer-aided systematic retrieval of linguistic data from a large corpus. The pattern will therefore be taken into consideration and included in the descriptions of the nouns which occur in it, but not examined quantitatively.

It is quite remarkable that a fairly large and heterogeneous set of nouns should favour such a small set of lexico-grammatical patterns.[12] And what is perhaps even more extraordinary is the fact that these patterns do not

seem to share a syntactic or semantic basis which could be used to explain why the nouns are used predominantly in them. On closer inspection, however, such a common basis can be found. I will try to show in the next section that a relation of what I call *experiential identity* between shell noun and shell content is evoked by most uses of shell-content complexes.

3.1.2 From identity of reference to experiential identity

The idea that *identity*, i.e. the notion that the shell noun and the shell content express ideas about the same thing, actually plays a role here is perhaps most convincing for instantiations of the pattern N-*be*-cl, because here shell noun and shell content are linked by a form of the verb *be*. Equative expressions of the type *A is B* clearly suggest that *A* and *B* are identical. This also holds true when the first element of the equation is expressed by a noun phrase such as *the advantage*, as in example (3.2) in Figure 3.1, and the second by a *that*-clause. That SVC-clauses with linking verbs have to do with identity is acknowledged in one way or another in many schools of grammatical thought. Quirk et al. (1985: 741) describe the semantic role of subject complements as that of "ATTRIBUTES", which can either identify or characterize the subject. In the construction N-*be*-cl, the semantic relation is identification. In Halliday's Systemic-Functional Grammar such clauses are analysed as intensive relational processes in the "identifying mode" on the level of clause as representation (Halliday 1994: 122-124). The experiential structure of these relations consists of two elements, the IDENTIFIED and the IDENTIFIER, and the identifying relation between them. Although shell-content complexes are a special case of identifying relations because the IDENTIFIER is a rank-shifted clause, this does not affect the status of the two components involved and the relation between them. To mention just one further example, Langacker, within his framework of Cognitive Grammar, calls such sentences "equational" and also regards identity as the underlying semantic relationship (Langacker 1987b: 77).

Anaphoric links (pattern *th*-N) such as those triggered by the demonstrative determiner *this* in example (3.3) in Figure 3.1 have also been interpreted as being based on a relation of identity, namely identity of reference (Halliday and Hasan 1976: 308).[13] The central idea, which is dubbed the "substitution view" of anaphora by Brown and Yule (1983: 201), is that anaphoric personal pronouns and noun phrases with anaphoric determiners simply replace other groups of linguistic elements which "refer to the same

thing" (Halliday and Hasan 1976: 314). Although especially for cases of anaphoric personal pronouns this idea is intuitively convincing, one cannot apply it directly to shell-content complexes of the type *th*-N. From the standpoint of the traditional philosophical and semantic view of *reference*,[14] the main problem with anaphoric expressions containing shell nouns is that the antecedents of the anaphora are normally not referring expressions but clauses, extended stretches of discourse, or even pieces of information which must be inferred from the context, as in example (3.3) in Figure 3.1. If, as in this case, one of the two expressions involved does not have the potential for reference at all, identity of reference is out of the question and the substitution view runs into serious difficulties.[15]

The same problems affect the pattern *th-be*-N, since it is implied in the definition of extended reference and text reference that the target of the anaphoric item must not be a referring expression. In example (3.4) in Figure 3.1 for example, the demonstrative *that* refers to the event that the first speaker has won a particular cross-country race. (It should be noted in passing here that in the pattern *th-be*-N, the semantic relation between the subject and the subject complement is not, as in the pattern N-*be*-cl, an identification but a characterization).

From a philosophical and logical point of view, then, *identity of reference* cannot be accepted as the relation underlying the link between shell noun and shell content in the patterns *th*-N and *th-be*-N. Strangely enough, both anaphoric patterns nevertheless strongly suggest that some sort of identity between shell noun and shell content is involved after all. This intuition has presumably influenced Halliday and Hasan's thinking and it also reflects the unspoiled view of the naive language user, which should be the basis for a genuinely cognitive view of language. In order to be able to account for this intuition, however, Halliday and Hasan's (1976: 31-37) rigid distinction between exophoric and endophoric reference, which lies at the heart of the whole dilemma, must be replaced with a more cognitively-oriented view of reference. According to such a view, items with referring potential are seen as being related neither to the text itself nor to the world outside the text but to the cognitive models that are created in the minds of language users. All these items contribute to the activation or reactivation of components of such models.[16]

It should be mentioned here, if only in passing, that such a step has far-reaching consequences from a philosophical point of view, because all questions concerning the truth of propositions become virtually irrelevant. It is no longer important whether some state of affairs holds true in 'objective'

reality, but only whether it is represented in the cognitive models of situations that participants activate or create.[17] From a linguistic point of view it must be emphasized that this integrative cognitive view of reference levels out a number of traditional distinctions, e.g. the contrast between anaphora and deixis and the special status of text or discourse deixis. However, this does not mean that the insights linguists have gained concerning these questions are no longer useful. They are only transferred onto a more finely-grained level of linguistic and cognitive analysis.[18]

Various types of cognitive models related to and evoked by texts have been postulated in the fields of semantics, text-linguistics, discourse analysis, psycholinguistics and other cognitive sciences. Kallmeyer et al.'s (1974: 23 *et passim*) notion of *Wirklichkeitsmodell* has already been mentioned above in note 16. Other examples are the notions of *universe-of-discourse*, *textual world*, *discourse representation*, *mental model*, *situation model*, *mental space*, *frame*, *script* and *schema*.[19] I will stick to the more general term *cognitive model* here (see Ungerer and Schmid 1996: 45-55) because all the terms just mentioned invoke certain theoretical or even ideological implications which would complicate the issue unnecessarily at this stage.

In accordance with a more or less explicit consensus in the linguistic and psycholinguistic literature I assume that cognitive models contain three basic types of information, namely concepts or components, attributes, and relations (see e.g. de Beaugrande and Dressler 1981: 84-90, Prince 1981: 235, van Dijk and Kintsch 1983: 344-346). The cognitive model evoked by a text is understood as a mental representation of all the people, organisms and objects, as well as the events, states of affairs, settings and other relations involving them, which are either mentioned in a text or suggested to be inferred from the information given in it.

Subsuming *reference* and *anaphora* as well as *deixis* under the idea of *activation of components of a cognitive model* solves the problem inherent in the claim that shell nouns and the linguistic elements expressing the shell content have to do with the same thing. On this highly general descriptive level the link between shell nouns and shell contents is that they activate identical or closely related components of a cognitive model. This co-activation is the cognitive counterpart to the pragmatic concept of *co-interpretation* and it is experienced by language users as *experiential identity*. In plain terms, experiential identity means that two or more separate linguistic elements contribute to the formation of one thought.

So far, I have been able to show that experiential identity is the relation holding between shell nouns and shell contents in the equative pattern N-*be*-

cl and the anaphoric patterns *th*-N and *th-be*-N (see Figure 3.1). This leaves me with the pattern N-cl still to account for.

All clear and typical cases of shell nouns in the pattern N-cl also evoke the impression that the nouns and the postnominal clauses are about the same 'thing' or state of affairs. Intuitively, experiential identity is again at work, then. This is particularly convincing when one regards the postnominal clauses as appositions.[20] As argued by Quirk et al. (1985: 1300-1302), the relation between linguistic units in apposition is identity of reference. My previous discussion therefore also applies to the relation between abstract head nouns and appositive postmodifying clauses. The relations of apposition and experiential identity between the noun and the postnominal clause can be tested by checking whether a matching form of the verb *be* can be inserted between them (cf. Quirk et al. 1985: 1261) without distorting the semantic relation. This is possible in example (3.1) in Figure 3.1 above: the paraphrase *the fact is that the rest of the world was against them* is compatible with the original version *the fact that the rest of the world was against them.*

Interestingly, Langacker explains such examples as (3.1) in terms of a notion called "referential linkage" (1991: 432). This term is used to account for constructions whose components "are construed as being identical" (1991: 430). This clearly supports my view of the relation between shell nouns and postnominal clauses. I prefer my own term *experiential identity* to Langacker's *referential linkage*, however, because, as outlined above, I find it problematic when the notion of reference is used to link noun phrases and clauses.

The notion of experiential identity thus serves well to explain the links to all clear examples of appositive postnominal clauses (which are treated as complements by some scholars, as we have seen in 3.1.1). For some of the cases outlined in Section 3.1.1, where the syntactic ties between nouns and clauses are less strong, the notion of experiential identity becomes also less clear. For example, while it can be argued that *a great place* in (3.7) above refers to the same location as *where it is possible to work*, such an interpretation constitutes a considerable extension of the notion of experiential identity. Examples of this type are therefore treated as highly marginal instances of shell nouns (see Sections 6.1 and 12.1). In (3.8), on the other hand, *at a time* and *when Washington ...* clearly seems to refer the same point in time, and in (3.9) *any place* and *where you can go ...* seems to refer to the same (unknown) location.

Let me sum up briefly. I have started this section by explaining the four lexico-grammatical patterns in which shell nouns are predominantly found. I have then claimed that the links between shell nouns and their contents can be traced back to the perception that the linguistic elements used to express the two components are about one and the same piece of experience. For the two patterns in which the link is based on anaphoric reference (*th*-N and *th*-*be*-N), it is impossible to account for this intuition on the basis of formal, logical or language-immanent views of the notions of anaphora and reference. In contrast, a pragmatic and cognitive view of the relation is necessary, and it is on this basis that I have argued for an underlying relation called *experiential identity*. In the two patterns N-cl and N-*be*-cl, the link of experiential identity between the shell nouns and their contents are created by syntactic structures with identifying or equating meanings.

3.2 The semantic contributions of different types of complements: a survey of the evidence from verbal complementation

Not just words, but also grammatical constructions have the systematic potential to activate meanings. Accordingly, not just the shell nouns themselves and the words making up the shell content contribute to the combinatorial meaning of the shell-content complex, but also the types of clauses through which the shell content is expressed in the patterns N-cl and N-*be*-cl. Although intuition suggests that *that*-clauses, infinitive clauses and *wh*-clauses are not chosen at random by speakers but used to convey different grammatical meanings, it is quite a challenge to isolate and identify these.

An enormous amount of linguistic research has gone into the study of the forms and meanings of the clause types that are used as complements of English **verbs**. Although the three types of clauses concerned in this study of nouns also feature prominently in the verbal domain, one cannot take it for granted that their usage is completely identical. For one thing, gerunds play an important role in the complementation of verbs, in addition to *that*-clauses and infinitives, but only a marginal one as prepositional complements in *of*-prepositional phrases in the complementation of nouns. This means that the system of available options is fundamentally different. This means that, as Quirk et al. (1985: 1231) put it, "the assumption of correspondence cannot be automatic, for it may fail in both directions". Two of their examples are given as (3.10) and (3.11) here:

(3.10) Joan is *likely* to get married.
*Joan's *likelihood* to get married.

(3.11) *It is *likely* of Joan's getting married ...
the *likelihood* of Joan's getting married ...

Erring on the side of caution, I will therefore start out from what could be called the *zero-hypothesis* that there is no direct correspondence between the meanings of the three types of clauses in combination with verbs and in combination with nouns. Nevertheless, it would be ridiculous to pretend that nothing is known about the grammatical meanings of the complements. So I will have a look at some findings that may help to understand the complementation of nouns – a highly selective look, since there is a veritable flood of literature on the complementation of English verbs.[21] In what follows, I will concentrate on *that*-clauses and infinitives because *wh*-clauses can be credited with two types of meaning without much further ado: they refer either to unknown information (by virtue of their relation to direct questions) or to circumstantial information (by virtue of their relation to adverbial clauses).

While traditional grammarians like Poutsma (1929: 607-632, 763-992) and Jespersen (1940) were of course also interested in the issue of the complementation of verbs and adjectives, it was in the early days of Transformational Generative Grammar that this issue really started to attract the attention of linguists. The major challenge for generative grammarians was to construct rules which, depending on the higher predicate, generated the matching "complementizers" (Rosenbaum 1967: 24). For example, the grammar should be able to generate sentences like *I think that John will be late*, but exclude sentences like *I think John's being late* (Rosenbaum 1967: 29). When attempts to solve such problems with a mixture of (so-called) syntactic features attributed to the predicates and ever more sophisticated transformations ran into more and more serious difficulties, it transpired that complementation is "in part determined by semantic considerations" (Menzel 1975: 35). Important steps on the way to this recognition were the work of Vendler on events and facts (see Chapter 1 and Section 2.1), and the articles by the Kiparskys on factive and emotive predicates (1971) and by Karttunen on factive verbs (1971a) and implicative verbs (1971b). Although many of the insights gained in the generative paradigm are illuminating and will be helpful for the description of shell-noun uses in Part II, the relevance of this research for the present study is limited because of the authors' preoccupation with technicalities of Transformational Grammar. It

is symptomatic, for example, that in Menzel's (1975) study of the semantics and syntax of complementation, which is one of the most semantically-oriented approaches in the generative paradigm, nouns like *fact, proposition, event, process, act* and *action* mainly feature as elements in the deep stucture of clauses which are deleted by transformation rules.

Closer to the pragmatic-cognitive approach taken in this study are attempts to explain the choice of complements on a predominantly semantic basis. The study by Ransom (1986) is such an attempt. Ransom tries to capture the meanings and forms of complements with a system of 16 types of so-called 'Combined Modalities', which result from the interaction of four 'Information Modalities' (*Truth, Future Truth, Occurrence* and *Action*) with four 'Evaluation Modalities' (*Predetermined, Determined, Undetermined* and *Indeterminate*). Depending on their propositional contents and their higher-level predicates, complements are credited with one of these modalities. In addition, modalities affecting the higher-level predicates like tense, aspect or negation are also taken taken into account. Interestingly, Ransom mentions in a note (1986: 29, note 2) that clauses can occur not only as subjects and objects of predicates, but also as "predicate nouns, appositive to nouns, and objects of prepositions". With the sensible justification that these sentence types derive their cooccurrence restrictions from the nouns rather than the higher predicates, she dismisses these structures as posing a problem outside her immediate field of interest.

What is nevertheless intriguing about Ransom's approach is that she manages to disentangle the potential meanings of the types of complements from the highly complex interplay of higher-level predicates and the modalities affecting these. Her matrix-like approach will therefore be taken up in Chapter 13. The price for this achievement is high, however, because it is only possible at the cost of introducing the somewhat idiosyncratic types of modalities mentioned above. Despite her claim that her analysis of modality meanings and their forms "developed out of previous linguistic theories" (1986: 29), Ransom indicates only very briefly (1986: 31, 57) that the first three of her Information Modalities correspond to what has traditionally been referred to as epistemic modality and the fourth to root modality. Another problem with Ransom's study is that highly frequent and characteristic combinations of predicates with complements are treated on a par with extremely rare ones. This has to do with her explicit reliance on the TG method of inventing examples and having them judged by native speakers (1986: 3), rather than on authentic data. As a result, everyday examples like *I remembered to play chess tomorrow* or *They watched Bo receive the*

awards are given without additional comments alongside with such exotic combinations as *I remembered whether to play chess tomorrow* or *It took place that Bo received the award* (1986: 18, 38). It is in comparison to such approaches that the advantage of corpus studies and controlled data on frequencies of occurrences (see Chapter 4) manifests itself most clearly.

Wierzbicka's (1988: 23-168) chapter on the semantics of English complementation is also not based on corpus data. Yet it is much closer to my concerns because Wierzbicka's approach is radically semantic and based on a cognitive view of language. It is her explicit aim to show "that ALL contrasts between TO, ING and THAT can be accounted for in terms of meaning" (1988: 26; emphasis original). Though far from being simplistic, Wierzbicka's account is less complicated than Ransom's because she tries to reduce the semantic basis of the complements to the smallest possible common cognitive denominators. Her method of extracting meaning from grammatical constructions is similar to mine; as in the present study, Wierzbicka compares the combinatorial possibilities of verbs and complements in order to derive the meanings of *that*-clauses and infinitives from them. Her findings are thus particularly well suited to provide the default assumptions that are needed as a starting-point for this study of the complementation of nouns, while keeping in mind that they may have to be modified at the end of the descriptive part.

Unlike most other linguists, Wierzbicka does not work with abstract metalinguistic terms like *actuality, potentiality, certainty* or *reification* (see e.g. Bolinger 1968: 124, Ney 1981: 129, Frajzyngier and Jasperson 1991: 138), but with simple semantic primitives like 'know', 'say' or 'want', whose significance and use are justified in her previous work (cf. Wierzbicka 1972, 1980, 1985). Since it is difficult to report Wierzbicka's ideas outside her framework without introducing distorting abstract terms, I will first quote her verbatim and then explain how I understand her. Wierzbicka claims that

> THAT complements can be shown to be derived from either SAY clauses or KNOW clauses. I have argued that of these two types the KNOW type is more basic, and SAY clauses can be reduced to the KNOW type. (Wierzbicka 1988: 163)

The infinitive complement, on the other hand

> is associated with a personal, subjective, first-person mode: 'I want', 'I think', or 'I know' [...] TO complements are compatible with the element

> 'know', but only in the subjective first person mode of 'I know' (which is sometimes reflected in the so-called 'coreferentiality constraint'); by contrast, THAT complements introduce an 'objective', impersonal, 'one can know' perspective. [...] In most types of TO complements which have been discussed here there is also a clear future orientation ('this will happen'), and there are reasons to think that this feature, too, should perhaps be regarded as part of the semantic invariant of all TO complement constructions. (Wierzbicka 1988: 164-165)

Translated into more common, but also more abstract, terms, this means that *that*-complements belong to the epistemic and the linguistic domain. Infinitives are more difficult to describe. The straightforward part of Wierzbicka's account is the relation of infinitives to volition and future events. Less transparent is her reference to what she calls the "first person mode of 'I know' ". I interpret this as Wierzbicka's way of saying that infinitives incorporate an element of subjectivity. This element is used by her to explain the phenomenon, which was accounted for by the TG grammarians with the help of the so-called EQUI-NP-DEL transformation,[22] that the subject of the subordinate clause is not expressed on the linguistic surface in infinitive clauses because it is co-referential with the subject of the matrix clause.

On the whole, Wierzbicka's account is confirmed by more recent work on complementation by other authors. Langacker, for example, explicitly states that "despite a rather different approach to semantic description, her [i.e. Wierzbicka's, HJS] analyses are roughly compatible with the ones sketched below" (1991: 439). Givón talks of a "systematic isomorphism that exists between the semantics of the complement-taking verbs, and the syntax of verb-plus-complement constructions" (1990: 515). He correlates *that*-clauses with "cognition-utterance verbs" and infinitives with so-called "manipulative verbs" (1990: 517-561). With cognition-utterance verbs, the main clauses contain verbs of perception, cognition, mental attitude or verbal utterance, and the complement clauses express propositions. With manipulative verbs, the main clauses encode manipulations by one agent of another potential agent, and the complement clauses encode the actions perfomed by the manipulated agent. Clearly, this account is also compatible with Wierzbicka's claims. The same can also be said of Frajzyngier and Jasperson's (1991) proposal, who argue that *that*-clauses belong to the *de dicto* domain and infinitives to the domain of *de re*. The *de dicto* domain is understood by the two authors as including all statements that can be true or

not. Even propositions that strictly speaking do not represent the contents of utterances fall under this definition.

Supported as it is, then, by the concurring views of other functionalist and cognitive scholars, Wierzbicka's view can provide the default assumptions for the examination of *that*-clauses and infinitives in co-occurrence with nouns. It will be assumed that *that*-clauses convey meanings related to the epistemic and linguistic domains, and *to*-clauses meanings related to the domains of volition and future orientation.

3.3 Basic functions of shell-noun typical patterns

In this section, the account of the links between shell nouns and shell contents will be rounded off by examining the basic functional properties of the four types of lexico-grammatical patterns introduced in Section 3.1.1. The whole of Part III of this study is devoted to the functional perspective, but the descriptive part (Part II) will be more illuminating if we already have an idea of what speakers do with these patterns. Four short but typical examples are given as reference points in (3.12) to (3.15):

(3.12) Pattern N-cl: This week he repeated **his belief** that intervention could draw the UN into a Balkan Vietnam. (ECON)

(3.13) Pattern N-*be*-cl: ... **the eventual aim** is to set up a new discipline from a fusion of two or more old ones. (NEWSCI)

(3.14) Pattern *th*-N: But what does it all mean? Anyone who claims to know the full answer to **that question** is either bragging or lying. (TODAY)

(3.15) Pattern *th-be*-N : And furthermore it has [pause] erm introduced the idea that people ought to be compensated for it. – Aha. – Don't you think that's **a crucial point**. (SPOKEN)

For the patterns *th*-N and *th-be*-N, two of the three functions that define the class of shell nouns (see Section 2.1) can be seen to dominate. The use of the pattern *th*-N is mainly motivated by the linking function. Speakers employ it to refer to information that has been mentioned before in a text or conversation (see 3.14). The other two functions are welcome side-effects of the use of noun phrases here. Although anaphoric reference also plays a role in the pattern *th-be*-N, the use of this pattern is mainly motivated by the