Abstract: Nouns such as thing, problem or fact (which I call 'shell nouns') are used in texts to refer to other passages in the text and to reify them and characterize them in certain ways. The paper focuses on the ability of shell nouns to single out pieces of information and reify (or hypostatize) them temporarily as 'things'. In order to investigate what lies behind this potential of shell nouns, it is contrasted with the constant hypostatization created by full-content words, and with the minimum degree of hypostatization achieved by the deictic pronouns this and that in extended reference.

Keywords: Abstract nouns, concept-formation, reification, hypostatization, encapsulation, anaphora, deictics

1. INTRODUCTION: ABSTRACT NOUNS AS SUPPLIERS OF CONCEPTUAL SHELLS

Over the past 15 years, an awareness has grown among linguists that certain types of abstract nouns fulfill a set of specific functions which make them extremely useful from a communicative point of view and, consequently, very interesting from a linguistic one.

One of the linguists who first drew attention to this phenomenon is Gill Francis (1986, see also 1994). In her M. A. dissertation, Francis (1986) discusses a set of nouns, called anaphoric nouns or A-nouns, which have the following properties: they can be used metadiscursively to talk about ongoing discourse; they function as anaphorically cohesive devices, because they refer to stretches of text preceding them, but also face forward, since they make up starting-points for new information (Francis, 1986: 31); and, most importantly for the issue addressed in the present paper, they "encapsulate", as Francis calls it with reference to Sinclair (1981:...
76), the stretches of discourse to which they refer. Francis (1986: 1ff) divides *A-nouns* into four classes: utterance nouns (e.g. accusation, answer, correction, gossip, protest, tale), cognition nouns (e.g. assumption, distortion, idea, recognition, view), text nouns (e.g. chapter, paragraph, segment, sentence, words) and so-called 'owner-less' nouns such as fact, issue, point or result. The last group, however, is not seen as containing *A-nouns* proper, because they do not function metadiscursively. In a more recent paper, Francis (1994) focuses on the fact that *A-nouns* label the information to which they refer in certain ways.

The image of encapsulation is taken up by Conte (1996) in a short article on "anaphoric encapsulation". Conte makes it clear that the antecedents of anaphorically used abstract nouns are not individuals but what Lyons has called "second-order entities" (i.e. events, situations, processes) or "third-order entities" (i.e. ideas, utterances, facts and propositions). Like Francis, Conte draws attention to the fact that abstract nouns with anaphoric reference do not only encapsulate information that is not clearly delimited (and thus give rise to its hypostatization and reification), but also allow speakers to characterize and evaluate the antecedents and serve as organizing principles in texts.

Ivanic (1991) looks at a similar set of nouns, which she calls *carrier nouns*. According to Ivanic, the major features of *carrier nouns* are that they are "nouns in search of a context" and that they "frequently carry a specific meaning within their context in addition to their dictionary meaning" (1991: 95).

Finally, it should be mentioned that the functions of reifying and referring have also been attributed to abstract noun phrases in languages other than English, namely in German (Koeppel, 1993) and in Italian (Conte, 1996; D’Addio, 1988, 1990).

In my own contribution to the study of abstract nouns of this type - a quantitative, qualitative and functional investigation of 670 English nouns, which is based on extensive material retrieved from the 225 million-word British section of the COBUILD corpus (Schmid, Ms.) - I have referred to the nouns under discussion as *shell nouns*. The idea behind this term is that the nouns are used by speakers to provide nominal conceptual shells for chunks of information which are conceptually unbounded, because they are expressed in a text in whole clauses, sentences, paragraphs or even longer stretches of discourse. I believe that the metaphor of shells can capture most of the functions that have been attributed to nouns of this type. To begin with, 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 reflects the encapsulating function of shell nouns: shell nouns can supply propositions and larger information chunks with conceptual shells which allow us to pick them up, as it were, and carry them with us as we 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, you always know what type of thing is inside. In the same way, *shells noun* function as labels for their content, as indicators of what they contain.

Since shell nouns are context-dependent, they must always be examined in relation to the information to which they refer. This information is called *shell content*, and the relation between the nouns and their antecedents is called *shell-content relation*.

Shell nouns can be defined on the basis of three functions. First, speakers use them in order to characterize complex chunks of information which are expressed in clauses or even longer stretches of text in certain ways. This semantic function of characterization is realized through the use of noun phrases containing shell nouns (and, optionally, additional premodifying elements). Second, speakers use shell nouns to turn these propositions or even more extensive chunks of information into temporary nominal concepts with apparently rigid and clear-cut conceptual boundaries. This is the cognitive function of temporary hypostatization. The third function, finally, arises from the bipartite nature of shell-content relations. For shell-content relations to be communicatively successful, speakers need to establish a link between the shell noun or (shell NP) and the shell content, i.e. the clause or other piece of text which contains the actual details of information. Speakers realize this textual function of linking by using various types of linguistic signals and constructions which instruct the hearer to interpret different sections of a text together. The relation between shell nouns and shell contents is not only be established by means of anaphora, but also by structural means, typically in NPs with clausal postmodifiers expressing the shell contents and as relations between the subjects and subjects complements of identifying copular constructions. The four major types of links are illustrated in examples (1) to (4), which are taken from the COBUILD corpus (the original sources are indicated in brackets; in all four examples, the shell noun phrases are marked by bold-face types, and the shell contents are underlined):

(1) Mr Bush said Iraq’s leaders had to face the fact that the rest of the world was against them (BBC)
(2) The problem was to safeguard the many civil radar sites round Britain from encroach­ment by property development. (NEW SCIENTIST)
(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, (INDEPENDENT)
(4) (I won the freshmen’s cross-country. - Mm.) That was a great achievement wasn’t it? (SPOKEN)

Although it is somewhat misleading to list members of functional classes - since whether a lin­guistic element qualifies as a member of a functional class does not depend on its stable inher­ent properties but on the way it is used - it will be helpful for the reader if a number of typical suppliers of shell-noun uses are provided. As can be seen, the examples in Table 1 below are divided into five categories. This classification reflects the fact that shell nouns can provide conceptual shells for facts, utterances, ideas and events, and, in addition, provide modal shells for facts and events.

<table>
<thead>
<tr>
<th>Table 1: Examples of suppliers of the five classes of shell nouns</th>
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<tbody>
<tr>
<td>Factual</td>
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<td>Linguistic</td>
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<td>Mental</td>
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<td>Eventive</td>
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<td>Modal</td>
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In the present paper, I will focus on the hypostatizing function of shell nouns, i.e. their poten­tial to create context-dependent concepts and to reify the information to which they are linked. Two questions will be addressed. First, how does the kind of hypostatization caused by shell nouns differ from that caused by other types of nouns (see Section 2)? And second, how can it be explained that the nouns have this particular potential (see Section 3)?
2. SHELL NOUNS: CONSTANT AND EPHEMERAL HYPOSTATIZATION

In order to investigate what lies behind the specific hypostatizing potential of shell nouns, it is helpful to contrast them with two opposing poles (cf. Ivanic, 1991): the constant type of hypostatization that underlies lexicalized full-content words on the one hand, and the minimum degree of hypostatization achieved by the deictics this and that used as pronouns with "extended reference" (Halliday & Hasan, 1976: 52f, 66f) on the other. These two sets of elements are particularly well suited for a comparison with shell nouns, because each of them shares one of the other two functions which define shell nouns. Full content words are among the prime linguistic means of characterizing our experience, and anaphoric pronouns are among the prime linguistic means of linking information that is expressed in different parts of a text.

Before the comparison can be carried out, however, it is necessary to clarify my understanding of the notions of concept-formation, reification and hypostatization. Since even for linguists, it is tempting to take the linguistic reflections of these cognitive phenomena for granted, I will begin on a fairly basic level of description.

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 or a cognitive category (Ungerer & Schmid, 1996: ch. 1). Essentially, the resulting conceptual relation corresponds to Saussure's model of the sign. It is with the process of establising this relation in mind that Leech (1981: 32) speaks of the "concept-forming power of the word".

The best examples for an illustration of how words contribute to the formation of concepts are nouns which denote either abstract entities or concrete entities with vague boundaries such as knee, mountain or mist, and nouns which denote events, for instance a noun like journey (cf. Leisi, 1975: 26). The naive view of words, which corresponds in this respect to the philosophical position called "realism" by Lyons (1977: 110f), suggests that there is a class of experiences, which is readily packaged somewhere out there and 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 a large variety of actions such as checking in at an airport, sitting in car, 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 someone travels from her home in Munich to Paris, does her journey start when she leaves her house, or when she boards the train, or when the train actually begins to pull out of the station? Despite the variety of experiences that can be referred to as journeys and the vagueness of the boundaries of journeys, the word journey gives us the impression that there is one neatly bounded class of experiences or experiences which we have in mind whenever we use it. But this is of course not the case.

This impression is even more marked with abstract words such as love, freedom or democracy, or linguistic concepts like conversion or style (Lipka, 1977). Again, the words suggest that there are things existing independently of the human mind, which are simply named or labelled by the words love, freedom, democracy. conversion and style. Yet again, this is an illusion. What people are talking about when they use the word love can be a whole lot of different types of experiences with an enormous range of different manifestations. The same is true of the notions of freedom and democracy, and it is well-known that one linguist's style is another's register and yet another's tone. Nevertheless we tend to think that the words love, freedom, democracy and style stand for rigidly bounded entities.

Ill short, what one can witness here is an example of what Talmy (1991) calls "conceptual partitioning", although it must be added that Talmy is more concerned with the partitioning of events by means of clauses than with the partitioning of concepts by the use of words. Words do not just create the impression that they stand for neatly bounded individual entities, however. Nouns especially also seem to suggest that these entities have thing-like qualities, in particular a substance of their own and an existence that is stable across time. When a noun exists for the description of an abstract and complex piece of experience, this results in a conceptual encapsulation and in the reification of this piece of experience. The latter process is called - perhaps a little idiosyncratically - "ascription of entityhood" by Talmy (1991).

The combination of conceptual partitioning and ascription of entityhood effected by words has for a long time been referred to by philosophers and linguists with the term hypostatization. A useful concise description of this notion has been provided by the Swiss linguist Ernst Leisi:

The Mythology.1,2 der scholastischen Realismus und die platonische Ideenlehre sind die größten Beispiele für die Neigung der Sprachgemeinschaften, jede Erscheinung irgendwelcher Art, sofern sie durch ein Wort bezeichnet werden kann, zu vergangenstümlich (allenfalls zu personifizieren) und mit einer selbständigen, von anderen Erscheinungen abgelisteten Existenz zu begießen, sie also zur akzidenzlosen Substanz zu erheben. Diese Erhebung zur Substanz nennen wir, dem Sprachgebrauch der Philosophie folgend, Hypostasierung.

(Leisi, 1975: 26)

A final concomitant effect of hypostatization is that the cognitive content related to a word-form is stored as an experiential gestalt in long-term memory. Even though many words are more like journey than like penny in that they refer to an enormous variety of different experiences, they still seem to correspond to unitary, well-integrated and holistic concepts which are different in nature from the sum of their manifestations (Ungerer & Schmid, 1996: 33f, and the references in their note 12 on page 58).

Although all types of open-class content words contribute somehow to the formation of some kind of concept, the hypostatizing power of words has its strongest effects with the use of nouns. For one thing, nouns lend themselves much more readily to a conceptualization of what they stand for as 'things', and this greatly encourages the illusion of reification. For example, the adjective round evokes a property of things, that is a relational concept, while the derived noun roundness seems to evoke a 'thing'. Similarly, unlike the verb assume, which stands for a mental process, the derived noun assumption also seems to represent a 'thing'. This recognition lies at the basis of Langacker's cognitive conception of word classes (1987a: 183ff, 1987b), and it will be shown below that it also plays an important role in the present context.

As a result of these considerations, I can propose three parameters for the comparison between full content nouns, shell nouns and demonstrative pronouns in anaphoric function.

1. The degree of stability of the relation between linguistic form and cognitive content
2. The degree of goodness of the conceptual boundaries of a concept
3. The potential for gestalt-formation

How, then, do the three types of linguistic elements behave with regard to these three parameters?

To start with full-content open-class nouns, one finds that if one neglects such phenomena as polysemy and vagueness, these nouns have a relatively constant relationship to the experience they encapsulate as concepts. This is due to their fairly stable denotation. Although it is well
know at the latest since Labov’s work (1973, 1978) that the boundaries of categories of concrete entities are fuzzy, there can on the other hand be no doubt that such categories do nonetheless have conceptual boundaries and that these are relatively strong. As I have pointed out above, nouns denoting classes of concrete entities lend themselves most readily to a conception in terms of ‘things’. A superficial reason for this is that the categories have ‘things’ as their members, of course. Another, more important reason is that the knowledge they select is fairly similar in kind and therefore these experiences seem to be particularly coherent and well-integrated; it is easy and useful to store the information about such categories as holistic gestalts and to abstract from the differences between the members of the categories.

Deictics, on the other hand, exhibit virtually no such concept-forming effects. Personal pronouns stand in for instantiations of concepts which are mentioned explicitly elsewhere. And demonstratives functioning as determiners with open-class nouns specify the reference of particular expression. Neither contribute to the formation of concepts. When the pronouns it, this or that are used in extended reference, 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 clearly not bounded as a concept and stored in the mental lexicon. Instead the semantic impact of such anaphora is completely context-dependent. As a consequence, it remains relatively elusive and vague. The degree of conceptual integration and the potential for the formation of an experiential gestalt are low.

Shell nouns stand between the two opposing poles. Like the deictics, they can be linked to completely different cognitive contents, as the two examples of the noun problem given in (5) and (6) demonstrate.

(5) The problem is that the water companies are as loath since privatisation as they were before it to transfer the reservoirs of surplus water to where they are needed. (TODAY)

(6) The problem was to safeguard the many civil radar sites round Britain from encroachment by property development. (NEW SCIENTIST)

The concepts or ideas activated by these two uses of the noun problem differ radically from each other. So these ‘concepts’ are extremely ephemeral in nature - if it is sensible to call these context-dependent, temporary cognitive entities ‘concepts’ at all. They are only created with reference to and for the purpose of one particular speech situation.

However, one should bear in mind that not the whole communicative impact of the two uses of the noun problem in (5) and (6) depends on the context. One part of the meaning of the noun remains stable, the part which indicates that what the noun is linked up with is an unwelcome and therefore negatively evaluated state of affairs. This semantic part is regarded as a categorization by D’Addio (1988, 1990), and it is captured by the criterion of characterization in my functional definition of shell nouns. As with full-content words, this characterizing element, i.e. the stable context-independent meaning of shell nouns, brings about a constant conceptual relationship to a specific recurrent type of experience, e.g. to problems, aims, ideas, declarations, opportunities, reasons, facts and so on.

Like all nouns, shell nouns create strong conceptual boundaries for the experience they activate, and give the impression that the chunks of experience they encapsulate as concepts are ‘things’ or, more precisely, instances of classes of ‘things’. As a result, reification and gestalt-formation are clearly at work. This can be shown best by juxtaposing one of the many deverbal linguistic shell nouns with a verbal paraphrase. Such a comparison is given in (7) and (7):
property. An adjective like *rich* can be applied with different meanings in many different situations, but to some extent, its meaning is also stable across different usages and usage types. Therefore it is necessary to come up with a more precise description of the semantic structures of shell nouns. In the remainder of this paper, I will argue that shell nouns include one or several gaps in their semantic structures which can be filled in by information provided in the context.

The first and weakest argument for the existence of such structure-inherent gaps is supplied by the image of shells underlying the term *shell noun*. In reality, something can only function as a shell, if it has a gap, a hole or some other kind of opening or dent which can receive its content. Analogously, a noun can only function as shell noun if it has a gap which can be filled by the shell content.

More compelling evidence can be found in the textual or, more generally, syntagmatic behaviour of shell nouns. As my corpus investigation (Schmid, Ms) has confirmed, it is true of shell nouns, as Francis (1994: 83) has claimed for her set of *A-nouns or labels*, that they require a lexical realization in their context. This notion of lexical realization or lexicalization goes back to Winter’s work (1977, 1982) on clause relations in texts. Winter himself also addresses this issue in a later paper (1992), where he makes it clear that what he calls *unspecific nouns* have to be made specific, or “lexically unique”, as he calls it (1992: 153), to be communicatively effective. It must be added, however, that Winter attributes a general kind of semantic unspecficity to the nouns, which many shell nouns, for example *irony, trick or realization*, do not exhibit. What is true, nevertheless, is the claim that expressions like just think of this problem or he imagined the trick are communicatively unsaturated. Shell nouns can only function properly if specific information, i.e. the shell content, is added to them. This indicates at least that their semantic structure is not complete in the same way as that of concrete nouns like *boy* or *book*. Expressions like look at the boy are not completely effective without the right context either, but they can evoke images of some sort before our mental eye. Their unspecificity is referential rather than semantic in nature.

A look at the use of the noun *reason* will help to flush out this claim. As is typical of shell nouns, *reason* itself provides information of a very limited nature. It does convey the information that one thing is causing or has caused some other thing, but it gives no clue as to what these things are. By evoking a two-place relation between cause and effect, the noun *reason* sets up two clearly defined semantic gaps which need to be filled. However, when it comes to specifying these things the noun itself is insufficient and must rely on the context to supply the necessary information, a characteristic which is of course again typical of all shell nouns. Most frequently, the cause gap is filled linguistically by a subject complement clause following the copula (see example 8), and the effect gap by a *for-PP* or a *why-clause* following the noun itself (example 9).

(8) ... and the army collapsed. The reason is that Kuwait is bitterly divided (GUARDIAN)  
(9) Differences over the islands have been the main reason why no peace treaty has yet been signed between Japan and the Soviet Union (BBC)

A third type of evidence for the existence of structure-inherent semantic gaps comes from the semantic analysis of good examples of shell nouns and from the way the meanings of such nouns are explained in dictionaries. Although general dummy elements like *something, situation or act* can be found in many dictionary entries, it is striking that entries that describe the meanings of shell nouns can hardly do without them. A completely random selection of entries for shell nouns, which are taken from the third edition of the *Longman Dictionary of Contemporary English* (1995, henceforth LDOCE3) in abbreviated form, is given in (10):

(10)  
- **fact**: a piece of information that is known to be true  
- **intention**: something that you intend to do  
- **way**: a method of doing something, or a manner in which something can happen or be done  
- **attempt**: an act of trying to do something  
- **upshot**: the final result of a situation  
- **remark**: something that you say when you express an opinion

As can be seen, all six entries include semantically unspecific elements which can be regarded as markers of inherent semantic gaps. The gaps of four nouns in this list are marked by the dummy element *something*, while the definition of *fact* makes use of the dummy element *a piece of information*, and the noun *upshot* of the general noun *situation*. Although this random collection of examples gives only a glimpse of the issue under consideration, it may still be seen as an indication that definitions of shell nouns tend to include such dummy elements.

The relative uniformity of the strategies used in LDOCE3 must not be misunderstood as suggesting that the gaps are all of a similar type. In actual fact, different shell nouns provide gaps for ontologically different types of entities. This can be revealed by trying to indicate the gap by visual means, as is shown in Figure 1. It should be kept in mind that a proper semantic analysis and description in terms of features and their dependencies and hierarchies would be a major effort in its own right, without being necessarily more illuminating than the crude type of analysis underlying these illustrations.

<table>
<thead>
<tr>
<th><strong>fact</strong></th>
<th><strong>intention</strong></th>
<th><strong>way</strong></th>
<th><strong>attempt</strong></th>
<th><strong>upshot</strong></th>
<th><strong>remark</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>state of affairs</em></td>
<td><em>true</em></td>
<td><em>state of wanting to do</em></td>
<td><em>activity</em></td>
<td><em>manner/method of</em></td>
<td><em>event/activity</em></td>
</tr>
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</table>

Figure 1: Diagrammatic illustration of structure-inherent semantic gaps

In all six diagrams, the stable, context-independent semantic parts of the nouns are represented by the hatched area, and the gaps in their structures by the blank slots. *Fact*, the most uni-
specific of these shell nouns, includes a very general gap which may be filled by any kind of state of affairs. The stable semantic part of the noun is that what it refers to is true - or rather, is conceived of by the speaker as being true. The noun itself gives no clues as to what state of affairs it is that is portrayed as being true by the speaker. The structure of the noun intention includes the information that someone is resolved to perform an activity, but it gaps the nature of the activity itself. Similarly, the noun way is related to the manner in which an event takes place or the method in which an activity is earned out, but also gaps the precise nature of these events. The noun attempt also gaps activities. It conveys aspects hidden in the paraphrase in the verb try, which have strong cognitive associations with activities, namely the agents' anticipation of the uncertain outcome of their activities. The noun upshot gaps activities. It conveys aspects hidden in the paraphrase in the verb try, which have strong cognitive associations with activities, namely the agents' anticipation of the uncertain outcome of their activities. The noun remark, finally, opens up an ambiguous gap, because the content can either represent the act of saying something, which highlights the illocutionary force of an utterance, or the content of an act of saying something. The latter sense corresponds to the propositional content of an utterance.

What I have suggested, then, is that such structure-inherent semantic gaps make it possible that shell nouns can fulfill the combination of constant and ephemeral hypostatization described in section 2 of this paper. As to the source of these gaps, one can only speculate. For nouns like intension, attempt, way and remark, which are derived from verbs, it is not difficult to suggest an explanation. These nouns behave just like the corresponding verbs intend, attempt, shoot (up) and remark, which are semantically incomplete and only get saturated when they are used in sentences. Although an equally straightforward explanation is impossible for synchronically unanalyzable nouns like fact and way, or idea and problem, it is highly interesting from an etymological point of view that even these nouns ultimately go back to verbs. Thus, the noun fact goes back to the Latin verb facere 'to do', idea to the Greek verb ideō 'to see' and problem to Greek πρόθεμα 'to throw out', a preposition from βλέπω 'to throw'. According to the OED, even way can be traced back to an Indo-Germanic verb with the meaning 'to carry'. Together with the morphological evidence, these etymologies confirm the idea proposed already by Porzig (1930) that abstract nouns must be seen as reifications of the contents of whole clauses. This also accounts for the existence of gaps in their semantic structures.

4. CONCLUSION

I have argued in this paper that there is a functional class of abstract nouns, called shell nouns, which have the special property that they allow speakers to temporally hypostatize context-dependent pieces of information, and to characterize them in certain ways. A semantic pre-requisite for the potential to combine constant and ephemeral hypostatization is a gap in the semantic structure of these nouns, which is earmarked for certain ontological types of entities like states of affairs, events, activities or processes.

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