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90% COMPLETED DRAFT

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How to analyze incongruent expressions: 'events' as nominal groups and 'objects' as clauses, etc

1 Components and levels in generating texts

Up to this point we have been able to say everything that we have needed to say about the meanings that are expressed in syntax in terms of a TWO-LEVEL MODEL of language - a model with a level of meaning and a level of form. But the framework that we need in order to understand the central concepts to be introduced in this chapter requires a third level of representation that is 'above' the two basic levels that are found in language itself - and that is therefore, strictly speaking, OUTSIDE language. So let's begin by reminding ourselves of the framework presented in Chapter 2.

In Chapter 2 - and throughout the chapters following it - we have regularly thought in terms of **situations** realized as **clauses**, and **things** realized as **nominal groups** - and in terms of similar 'meaning' to 'form' pairs for the other units.

As we saw in Chapter 2, these two levels of **meaning** and **form** are both within the **lexicogrammar**. The level of meaning is the **semantics**, where the meaning potential of the language is specified through the **system networks** of semantic features. And the level of **form** includes **syntax**, **items**, and **intonation** (or, in written text, **punctuation**). Within this level of 'form' this handbook is focussing on syntax, because it is the most problematical aspect. But we are in fact also covering items, since it is words through which the syntax is expounded, and punctuation (and through it the intonation of which it is typically a simpler equivalent). So far, then, we have thought about language in terms of the two levels of semantics and form - and you will find these familiar concepts shown in the lower part of Figure 1.

But we now have to add, as a separate component that is ABOVE THE LEXICO-GRAMMAR, a new level that represents the input to the generation process. This is the original mental representation of the **event** that is to be transmitted by the performer (P) to the addressee (A). The content of this representation is planned by P - in a sense of 'planning' in which the planning is almost always unconscious reasoning. This process of planning draws on aspects of P's knowledge - or, to express it more accurately, on aspects of the **beliefs** in what we will call P's **belief system**. This includes P's own goals and plans, her beliefs about the

world, including a lot of what we call 'general knowledge', some beliefs that are 'local' to P and the other members of the social groups to which she belongs, and 'knowledge' of - i.e. beliefs about - the particular current addressee (including his goals, plans and beliefs), the particular social situation in which P and A are participating, and so on. From all this great variety of material P selects some subject matter that she wishes to transmit to A, also choosing a suitable type of discourse act - and much else besides.[a]

We model the 'language' in which all this is done as a special type of **logical form.** So it is the logical form (LF) that is used to represent the input to (and output from) the language system itself. But since this handbook is about functional syntax and not logical form we will keep the the references to it to a minimum. In this chapter we will not need to represent it at all (though we will in Chapter 23).

There is one final point to be made at this stage. Like many others, I take the position that our belief systems are closely related to language, precisely because it is through language that we learnt and validated most of our beliefs. Each of us did this as a very young child, in those demandingly continuous interactions with the mother and other parent figures that are the very life blood of a child's development. In view of how we acquire our beliefs, then, it is not surprising that the nature of logical form is itself strongly influenced by the nature of language - and that it contains units that correspond systematically - though not in a one-to-one manner - to the units of language. To oversimplify a little, we can say that the principle relations with which we will be concerned here are those shown in Figure 1.

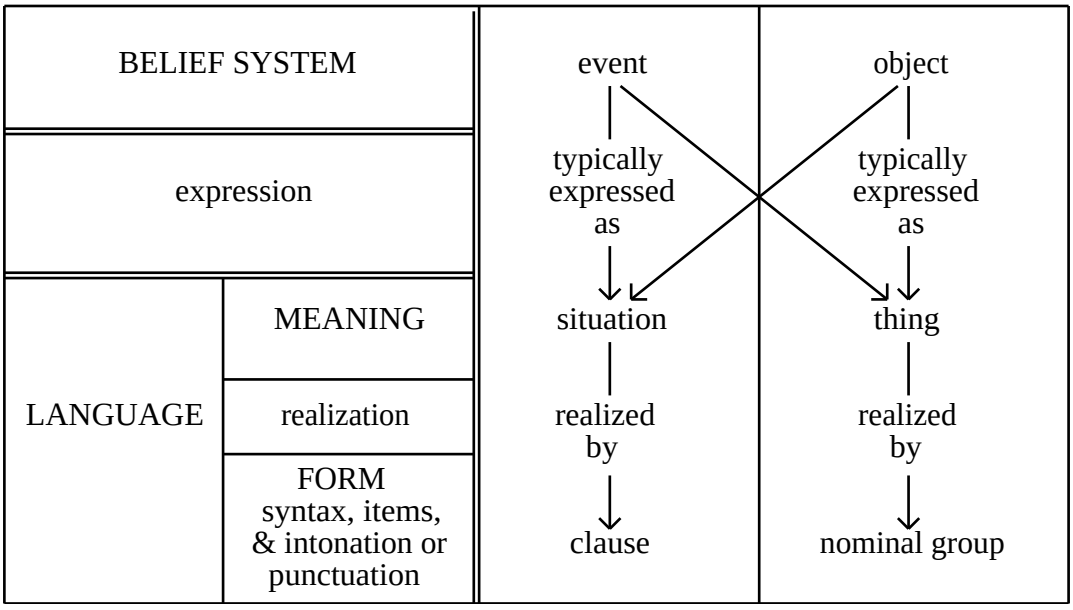


Figure 1: Incongruence in the relations of two units of logical form to language

The vertical arrows Figure 1 show the typical relations between the logical form and the system networks of meaning. This type of 'typicality' is known as **congruence**. So, when an event is expressed congruently, we have the semantics of a 'situation', and this is realized at the level of form as a clause. But when it is realized **incongruently** we have the semantics of a 'thing', and this is realized at

the level of form as a nominal group. This 'incongruence' is shown by the diagonal arrow that leads from 'event' to 'thing' in Figure 1. And, as Section 3 will show, the converse occurs too - i.e. an object may be represented by a 'situation', and so a clause. Thus the two crossing arrows in the top left quarter of the diagram represent the two major types of incongruence that we will consider here.

2 Types of incongruence

2.1 The purposes of this chapter

The three main purposes of this chapter are:

1 to introduce the two main types of **incongruent** relationship shown in Figure 1 (including a wide range of sub-types within one of them),

2 to show how to analyze each type and each sub-type;

3 to show why the proposed analysis is appropriate; and

4 to introduce some other non-problematical types of incongruence.[b]

I will now introduce the three main types of incongruence briefly, and then in the following sections we will examine each more closely. And we will find that there is a greater range of variation than might at first be expected.

2.2 Using a nominal group to refer to an event

As we have reminded ourselves in the previous section, an event is typically realized as a **clause.** But in the first broad type of incongruence that we will examine, the Performer (P) of a text-sentence presents an **event** as if it was an **object**. That is, it is realized as a **nominal group**. To put it like that makes it seems a simple problem for the analyst, and it very often is - at the level of syntax. But there is often a considerable complexity in the relationship between the logical form and the formal syntax, and it is very helpful to have a broad understanding of these relationships when analyzing the syntax - even of the apparently simpler cases. In particular, when we come to the analysis of the Participant Roles of events in Chapter 2 of The *Functional Semantics Handbook*, we will find that it is absolutely necessary to understand these relationships.

There is also a great deal of variation in the extent to which the **nominalization** of an event occurs between the three broad types, and there are also interesting variations within each in terms of matters such as whether a PR is overtly expressed or not and and its presentation as 'thematic' or 'potentially new'.

Let us see what examples of each of the three main types of nominalization would be like by considering alternative versions of the following clause. The social context is a group of climbers talking over supper in Zermatt (a village at the foot of the Matterhorn in the Swiss Alps), and one climber is describing part of a demanding climb which involved climbing up one ridge of the Matterhorn and down another. Thus our text-sentence is:

(1) Ivy carefully descended the Hörnli Ridge.

The analysis would be as in Figure 2:

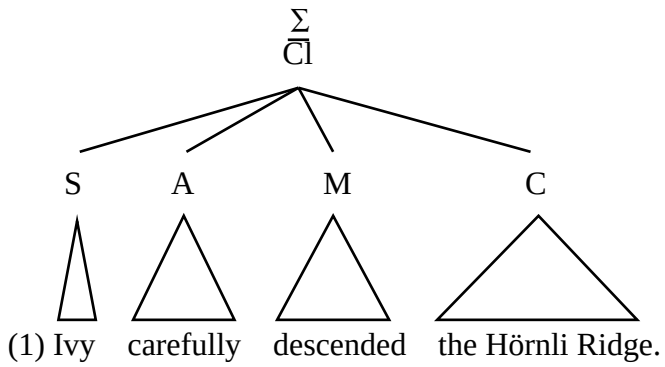


Figure 2: The syntactic analysis of a simple clause

However, we can make this ‘descending’ event the Complement of a matrix clause whose Process is, let us say, ‘knowing’ or 'watching'. We will take ‘knowing’ first. If we want to embed the ‘descending’ event as the Complement of the ‘knowing’ event we typically present it as a ‘proposition’. To do this, we use a full clause that is like the ‘information giver’ version of an independent clause, except that we may choose to mark the fact that the event is being presented as a ‘proposition’ by introducing it with the Binder *that* - as in *We know that Ivy carefully descended the Hörnli Ridge.* (As we noted in Chapter 11, there are other limitations on what options are available, e.g. on thematizing Adjuncts, so that it would be very odd to place *carefully* before *Ivy*.) The analysis of the embedded clause would therefore be exactly the same as it is in Figure 2, but with a preceding Binder and with the clause filling the Complement of the matrix clause.

Now consider the rather greater adaptation of the independent clause that is reflected in (2):

(2) We watched Ivy carefully descending the Hörnli Ridge.

Here, the embedded clause is the Complement of a Process of physical ‘perception’, and what is being perceived is not a proposition but the event itself. In such cases we use a **partial clause**, i.e. one that open to a very much more range of choices in expressing meanings of ‘time’, ‘power & volition’, etc. than are available to an independent clause. So the similarity of the analysis of the embedded clause in Figure 3 to the analysis of (1) and of *that Ivy carefully descended the Hörnli Ridge* is a little deceptive.

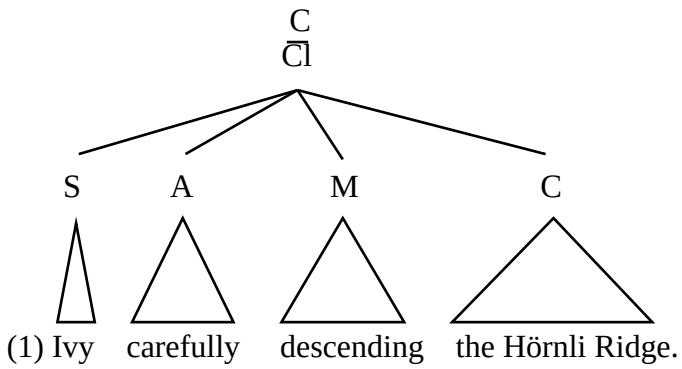


Figure 3: The syntactic analysis of a 'partial' embedded clause

Now we come to the three types of nominalization - each of which involves a different type of further reduction in the choices available for expressing the event itself. But what distinguishes these 'reductions' of the event of 'Ivy descending the ridge' is that the event is presented as if it was a 'thing' - so that it is realized by a nominal group. Consider (3):

(3) We watched Ivy's careful descent of the Hörnli Ridge.

Here there is no Subject, no Adjunct, no Main Verb and no Complement - so there is no clause. What we have instead is a nominal group that fills the Complement of the matrix clause - instead of the partial clause that we had in Example (2). Here the head of the nominal group is the **event noun** *descent*, and this is an example of what we will call a **Type 1 nominalization**. We will consider the details of its analysis in Section 3.2.

However, we do not need to go all the way in this process of 'nominalization'. We can maintain SOME sense that what we are referring to is in fact an event, by saying:

(4) We watched Ivy's careful descending of the Hörnli Ridge.

Here too a nominal group fills the Complement, but we at least have a **lexical verb** to denote the event in *descending*. This is termed a Type 2 nominalization, and its internal structure is essentially the same as that of a Type 1 nominalization, as we will see in Section 3.3.[1]

But we can retain rather more of the characteristics of a clause if we say:

1. This example and the following one both sound rather stilted, as these two types of nominalization often do. Climbers would normally not use such expressions, because they have adopted the terms *ascent* and *descent* as technical terms for everyday use. The result is that there is little call for *descending* in the context of a discussion between climbers. (In most other social contexts, however, these terms are typically used formally or poetically, e.g. the use of the term *ascent* in the title of a well-known television series of the 1900s, *The Ascent of Man*..)

(5) We watched Ivy's carefully descending the Hörnli Ridge.

Here the item *carefully* appears to be an adverb of manner suggesting that we have a **Manner Adjunct**, *descending* seems to be functionong as a **Main Verb**, and *the Hörnli Ridge* looks like a **Complemen**t. So this example is very much more clause-like that the first two - and yet it is introduced by the item *Ivy's,* which clearly has the form of a genitive cluster that fills a **deictic determiner**. This is a **Type 3 nominalization**, and its rather different structure is described in Section 3.4.[3]

Section 3 explains s the DIFFERENCES in the analysis of these three types on nominalization. What the three have in common is that they are all **incongruent** expressions of events. - incongruent, because the event is expressed as a nominal group, not as a clause.

To summarize so far, we can say that **events** in logical form are quite frequently expressed as 'nominalizations' - i.e. as nominal groups - and that the first type of these use 'event noun senses' (and so in turn as 'event nouns' such as *descent*). However, there are many variants within each of the three types, as we will see in Section 3.

2.3 Using a clause to refer to an object

The second type of incongruence is almost the inverse of the first. Instead of referring to an **event** by using a **nominal group**, we can refer to an **object** by using a **clause**. Typical examples are *What Ike wants is a pizza* and *What you saw wasn't what I saw*.

Since the first type of incongruence is called 'nominalization', we might reasonably term this second type 'clausalization'. But we will not use this term, because it could be taken as implying that an object has been expressed in a clause. And, while this is the dominant pattern, it is not always the case that the referent is an object. Indeed, in some of the most frequent types the referent is an event, as in examples that begin with *What happenend next was that ....* and *What we did was to ....* Other examples where the referent is an event include *It was because he overslept that he was late* and *Why he was late was because he overslept,* and we will want to treat *that he was late* and *why he was late* as examples of this construction. So in order to accommodate such cases we will describe the function of this construction as THE SPECIFICATION OF A REFERENT BY ITS ROLE IN AN EVENT, and we will refer to it as the **referent-as-role-in-event** construction.

2.4 Other types of incongruence

In Section 5, I will briefly introduce a third type of incongruence - one which is not shown in Figure 1, but which fortunately presents no problems for the analyst of sentence structure. And finally I will explain why, in the approach taken here, there is no need to introduce certain other types of structurally realized incongruence that have been proposed.[c]

The next section covers the incongruence of 'nominalization'. One good reason to take this array of types of incongruence first is that they are, collectively, by far the most frequent of all types of incongruence.

3 Nominalization: the-event-as-object construction

3.1 Introducing the concept of 'nominalization'

3.1.1 Why do we use nominalizations?

A nominalization is an event that is expressed syntactically as a nominal group. Why does a user of English present **events** as if they were **objects**?[d] As Chapters 12 and 15 show, nominal groups - and so objects - can fill a wide variety of elements of structure in the various units - i.e. more than clauses can. So if a Performer (P) chooses to express an event - **incongruently** - as a nominal group, P has a significantly greater choice of ways in which to relate the event to other events, objects, etc, using a wider range of semantic - and so syntactic - contexts. It gives us, as users of English, new ways of embedding events in other events - in addition to those described in Chapter 10. As an example, consider the underlined event of 'complaining' that is presented as the completive to the preposition *in spite of* in (6):

(6) In spite of Fred's repeated complaints to the company, he received no reimbursement.

A second great advantage of a nominalization is that it is much less obvious if the Performer OMITS a participant in the event that it would be if he or she omitted it from a clause. (A typical motivation would be if P wanted to avoid mentioning the referent because it would be embarrassing to him or her to do so. So the managing director of a company might prefer to say *The sale of P & Q Holdings last year lowered the company's rating on the stock market*, rather than *The fact that I sold P & Q Holdings last year lowered the company's rating on the stock market*. In this way P avoids having to acknowledge his/her responsibility for the company's losses. The reason why this technique works so effectively is that the most typical structure for a nominal group before the head is to have JUST ONE OTHER ELEMENT**:** the deictic determiner *the.* So, if the Participants associated with the Process expressed in the head are absent, that absence is less obvious than it would be in the event was expressed as a clause. For example, when you read Example (6) just now, did you find yourself asking who 'Fred' was complaining to and what he was complaining about? You probably didn't - and yet these are the two other Participant Roles in the process of 'complaining'(in addition to the 'complainer', Fred).

To summarize so far, we can say that that nominalized events are:

1 events that are DRESSED UP as objects,

and so, because the more limited structure of the unit into which the event is squeezed, they are:

2 events that are COMPRESSED into a unit that is designed for a different

purpose, i.e. to express the meanings associated with objects.

And the ADVANTAGES of nominalizing events are:

1 greater flexibility in constructing complex messages that contain embedded events BECAUSE NOMINAL GROUPS CAN FILL SO MANY DIFFERENT ELEMENTS IN SO MANY DIFFERENT UNITS, and

2 the possibility of OMITTING UNWANTED PRs without anyone noticing.

3.1.2 Three dimensions of variation within nominalizations

There are three main dimensions of variation in nominalizations (and one minor one):

1 variation in the DEGREE of nominalization, i.e. the three types referred to above;
2 variation in structure to allow for variation in the SEQUENCE OF THE SEMANTIC ROLES;
3 variation in the number of semantic roles that are OVERT; and
4 variation in how the semantic roles are marked (a relatively minor matter).

We will structure our exploration of nominalization around the first of these dimensions of variation, considering the second, third and fourth types of variation within the framework of the three 'degrees' of nominalization.

3.1.3 The point of comparision: the congruent expression of an event

For each type of nominalization, we will consider the possible variations in a structure that might otherwise have been expressed as a full clause. The clause is as in Example (1), and Figure 4 adds to the syntactic analysis shown in Figure 2 the analys of the Participant and Circumstantial Roles (PRs and CRs).

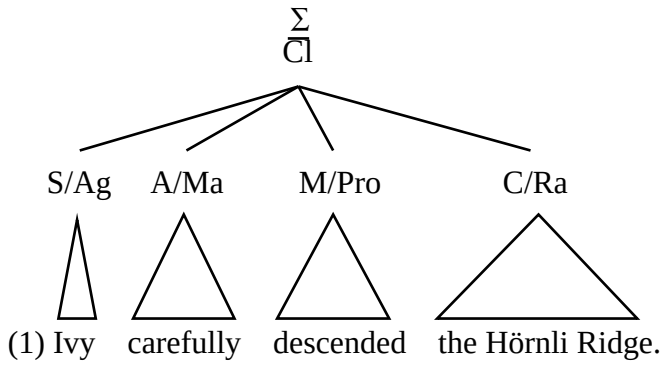


Figure 4: The analysis of a simple clause, showing its Participant and Circumstantial Roles

Most of the labels used in Figure 4 will be familiar to you, so first let me explain why I have added those that are not, and what they mean. The reason why we need them is to be able to compare this simple clause with the three equivalent the nominalizations that we will meet shortly. Specifically, we need to identify the different TYPES OF PARTICIPANT ROLES in the process of 'descending'. This is because it is, strictly speaking, not the Subject and Complement but the PRs that are filled by the nominal groups *Ivy* and *the ridge*. So the diagram in Figure 4 gives the following information about PRs:

> *Ivy* is the type of PR known as an **Agent** (shortened to 'Ag'), and
> *the Hörnli Ridge* is the type of PR known as a **Range** (shortened to 'Ra').

Informally, we can say that an Agent is a 'doer', and that a Range is some object that is a Complement but which is not affected or created by the act of 'doing'. For example, in *Ivy hit Ike*, Ike is 'affected' by the 'doing', and *Ike* therefore fills the Participant Role of Affected rather than Range. But it would be extremely odd to say *What happened to the Hörnli Ridge was that it was descended*, so that it is not an Affected, but a Range.

Figure 2 also gives this information:

> *descended* is the **Process** (shortened to 'Pro'), and
> *carefully* is a **Circumstantial Role** of **Manner** (Ma).

The concept of the **Process** is one that has been central to the analysis throughout the *Handbook*. We have simply assumed that the Main Verb always expresses the Process - or a part of it, as in examples such as *put out, look at, get rid of,* and *have a bath*. But we did not show that the Main Verb always has the Process (or part of it) conflated with it, since it would have been redundant to write 'Pro' by every 'M'. But it would be completely reasonable to do this - as I have in Figure 2. The reason for doing this is to prepare the way for the analyses to which we will come later in this section, in which the Process is conflated with the head of a nominal group. And, since it is NOT always the case that the head of a nominal group has a Process conflated with it, we will always show it, in such cases. In other words, it is useful to identify the Process explicitly in both the clause and the nominalization, in order to make the equivalences between the two completely explicit in the analysis.

Finally, we come to the item *carefully*. This a Circumstance of Manner, and it is represented here as conflated with an **Adjunct** shown as 'A/Ma'). As we will see, in nominalizations we have to separate the 'Manner' from the 'Adjunct', because it too, like the PRs and the Process, is sometimes conflated with an element of the structure of the nominal group.

In Figure 4 the Agent and the Range are shown as being **conflated** with the elements **Subject (S)** and **Complement (C), and the Manner and the Process are shown as conflated with the Main Verb and the Adjunct.** Thee conflation is shown by a forward slash ('/'). The reason why we need to introduce the concept of PRs and CRs at this point is that, in a nominalization, the PRs that are attached to the S and the C in a clause are here attached to ELEMENTS OF

THE NOMINAL GROUP. And, as we will see in due course, the PRs are not necessarily attached to the same elements of the nominal group. In other words, there is some variation in sequence - just as there is in the clause, but not on such a grand scale.

3.2 Type 1 nominalizations

3.2.1 An overview of Type 1 nominalizations

Type 1 nominalizations are by far the most frequent type. But they have one big drawback, as we will see at the end of this section, and this means that they cannot be used every time that a Performer wishes to nominalize an event.

It is also the Type 1 nominalizations that illustrate most clearly and most fully the process of **nominalization** itself. As we have seen, a nominalization is a structure in which the syntactic resources of the nominal group are utilized in order to try to accommodate the semantics of an event. In its efforts to match the various types of meaning that are typically expressed in a clause, a Type 1 nominalization is able to stretch the structure of the nominal group much further than one might at first think possible - but, as we will see, the nominal group can be stretched only so far, and there are many aspects of the meaning of an event that cannot be expressed.

The central characteristic of a Type 1 nominalization is that the head of the nominal group is expounded by a **noun** which is SEMANTICALLY EQUIVALENT to the **lexical verb** that would be used if the event was being expressed as a clause. Since the noun *descent* corresponds closely to the lexical verb *descend*, we can use the following set of examples to illustrate the range of possibilities within Type 1.

(7) Ivy's careful descent of the ridge (took two hours).
(8) Ivy's descent of the ridge ....
(9) The descent of the ridge by Ivy ....
(10) The ridge's descent by Ivy ....
(11) The descent of the ridge ....
(12) Ivy's descent ....
(13) The descent by Ivy ....
(14) The descent of Ivy ....
(15) The descent ....[2]

Some of these are variants occur more frequently than others. But reasonably plausible contexts can be constructed for all of them, so that their grammaticality is not at issue. In the following sections we will consider the problems for the analyst that each of these examples brings up, and in the course of doing this we will discover some little known facts about the potential of nominalizations to enter into aspects of ‘thematic’ and ‘informational’ meaning.

3.2 A rough (but inaccurate) comparison between the structures of clauses and nominalizations

Figure 5 gives a rough picture of the equivalences between the analyses of a

2. The number (17) is correct; these examples will be picked up in the rest of this section.

simple clause and the experientially equivalent nominalization. But it is not fully accurate, as we will see in the next section.

Notice that the equivalences are at their greatest when, as in this example, a Manner Adjunct is placed in one of its less frequent places in the clause. In an example such as *Ivy descended the ridge carefully* the elements would be the same, but the sequence could not be matched in the nominalization. In fact, there is only limited scope for the expression of Circumstantial Roles in nominalizations (as we will see in Section 3.2.4 below).

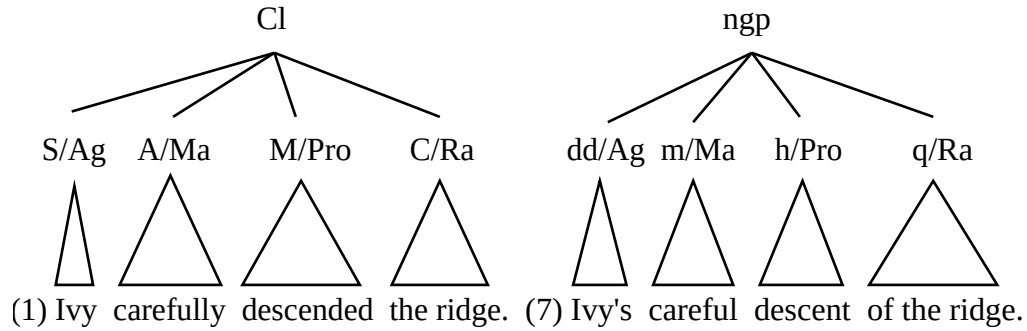


Figure 5: A rough (but inaccurate) comparison of a simple clause and a nominalization

In Figure 4, the Agent and the Range are shown as being conflated with the elements Subject and Complement, and the Manner and the Process are conflated with the Main Verb and the Adjunct. These conflations are shown by a forward slash ('/').

You may be wondering why we need to introduce the concept of PRs and CRs at this point. The reason is that it is only through an analysis in terms of PRs and CRs thatwe can state the equivalences that hold between a clause and its equivalent nominalization. As Figure 5 shows clearly, the PRs in a clause are typically conflated with elements of the clause, and in a nominalization with ELEMENTS OF THE NOMINAL GROUP.

However, as we will see in due course, the PRs are not necessarily always attached to the SAME elements of the nominal group. In other words, there is some variation in sequence in the PRs and the CRs - just as there is in the clause, but not on such a grand scale.

3.2.3 A full functional analysis

Let us now make a full functional analysis of Example (7), in order to pinpoint the places where the rough analysis in Figure 5 is misleading. This is the most complex case, and it is good to start with it because we will then find that we have established the framework for analyzing all of the other cases - with a few minor extensions and adaptations. As we explore the analysis of (7) we will find that there are some interesting semantic implication of the ingenious way in which earlier users of the language have exploited the structure of the nominal group to carry meanings of 'theme' and 'potentially new' that are typically associated with clauses.

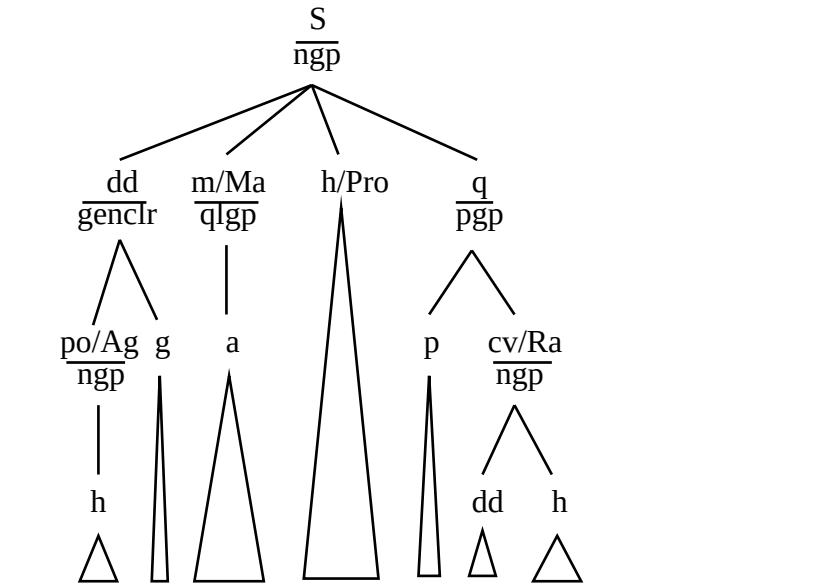


Figure 6: The full analysis of a typical Type 1 nominalization

Drawing on Figures 5 and 6, let me now spell out in full the ways in which the PRs and CRs are expressed in the clause (in Figure 5) and the nominal group (in Figure 6). We will start, as we would in the analysis of a clause, with the Process.

The **Process**, which is typically realized in a clause as the **Main Verb**, is here conflated in the **head**. In the present case (but not in othetr types of nominalization) the head is expounded by an **event noun**, i.e. the word *descent.* It realises a meaning that appears in the semantics as an 'event thing'. Indeed, in the Cardiff Grammar 'event things' are treated as one of the three primary categories in the semantics of ‘things’, and the feature 'event thing' is therefore one of the three initial features in this part of the system network (along with 'physical thing' and 'abstract thing'). This is one measure of the centrality in the language of ‘event things’.

In the analysis of a clause we would look next for elements such as Auxiliary Verbs and an Operator, but there is no equivalent of these in a nominalization. So we look next for the equivalent of the Participant Roles. The rough analysis in Figure 5 suggests that the role that is typically associated with the **Subject** - in this case an **Agent** - is associated with the **deictic determiner (dd)** in a nominalization. But the full analysis in Figure 2 clearly shows that it would be more accurate to say that it is conflated with the **possessor (po)** in the **genitive cluster (genclr)** that fills the deictic determiner. The **genitive element (g)** is expounded by the morpheme *'s*, as we saw in Chapter 14. However, since the genitive element never changes, it would do little harm if, in a simplified analysis, you were to show the Agent as conflated with the deictic determiner - in which case it would be shown as 'dd/Ag', as in Figure 5. We will make use of this simplification in the examples to be analysed below, in order to focus attention on the main issues.

Similarly, in a rough analysis as in Figure 5, we can say that the role that is typically associated with the **Complement** - in this case a **Range** - is here

associated with the **qualifier.** However, as with the Agent, it would be more accurate to say that the Agent is conflated with the **completive** in the prepositional group that fills the qualifier. Again, however, since the preposition is always *of*, little harm is done if the PR is associated with the qualifier - e.g. as in 'q/Ra' in Figure 5. In the examples to be analyzed below, we will also sometimes make use of this simplification.

Finally, the semantic role that is typically realized in a **Manner Adjunct** is conflated with a **modifier**. In a clause the quality expressed here in the word *careful* would typically be realized by *carefully*, but both would be shown as expounding the apex of a quality group at A. But in the nominalization it is not given its *-ly* suffix, and it becomes the equivalent adjective, with the qlgp functioning at m. There is only a small number of types of meaning that are congruently expressed as Adjuncts that can become modifiers in nominalizations. Two that can are those expressing 'usuality' and 'possibility', as in *my usual visit to my aunt* and *a possible failure of the electricity generator*. But others such as those expressing Time Position cab be expressed in qualifiers, as in as in *my usual visit to my aunt last week* and *a possible failure of the electricity generator next week*. (The criteria for distinguishing the various functional types of Adjunct are given in Chapter 3 of The *Functional Semantics Handbook*.)

3.2.4 A comparison of how PRs and CRs are expressed in a clause and in a nominalization

The way in which English has adapted the nominal group so that it can express the most frequent experiential aspects of events is extremely impressive. Relatively comfortable fits between the semantics and the syntax are found for each semantic role in the event. Here are the main ones:

1 The **Main Verb** is the PIVOTAL ELEMENT in the clause, and the Process is similarly associated with the PIVOTAL ELEMENT in the nominal group, i.e. the **head**.[e]

2 **Participant Roles** are typically expressed as nominal groups, so the PRs are attached to two elements in the nominal group of the nominalization which contain an element that is itself typically filled by a nominal group, i.e. the **deictic determiner** and the **qualifier**. Moreover, the deictic determiner always precedes the head, just as the Subject almost always precedes the Main Verb. And the qualifier occurs after the head, just as a Complement typically occurs after the Main Verb (and so the Process). More specifically:

   a The usual location for the PR that would typically be the **Subject** in a clause (the typically first' PR) is as the **possessor** in a **genitive cluster** at **dd**. And the possessor element of this unit, of course, is typically filled by a nominal group (e.g. by *my aunt* in in *my aunt's hat*). And in a precisely parallel fashion:

   b The usual location for the PR that would typically be a **Complement** in

a clause is the **completive** in a **prepositional group** at **q** - and the completive, like the possessor, is typically filled by a nominal group (e.g. by *of* in *the grave of his elderly aunt from Brazil*).

3 A Circumstantial Role of **Manner** is typically expressed as a **quality group** that fills an **Adjunct**, so it finds a natural home within the nominal group in the element that is also typically filled by a quality group, i.e. the **modifier**. The same principle applies to certain other types of meaning that are expressed through the use of quality groups that fill Adjuncts, such as **Validity**, **Usuality** and at least one type of **Time Position Adjunct**, as in *a possible descent, Ivy's usual descent* and *Ivy's recent descent.*

4 The high frequency Circumstantial Roles of **Time Position** and (to a lesser extent) **Duration** are most often expressed in nominalizations as **qualifiers**, as in the two underlined portions of *our visit to China for three weeks in 1999*. But a Duration can be also expressed as a nominal group that fills a **modifier**, as in *our three week visit to China last year*, and a Time Position can even function, illogical though it may appear, as the **possessor** in a genitive cluster that fills a deictic determiner, as in *last year's visit to Russia by the Prime Minister.* This becomes much more likely when the expression is one of the 'deictic time' meanings that is expressed in a nominal group, as in this example.

There is one final twist to the functional analysis of such nominalizations. This is that there is an interesting implication in the use of the 'possessor' function of the deictic determiner. This is the implication that in an example such as *Ivy's decent of the ridge* the concept of 'possession' is introduced to the relationship between the Agent ('Ivy') and the event of 'carefully descending the ridge'. It is as if we can 'own' our actions. It is no coincidence that any PR that becomes the 'possessor' of the rest of the event in a nominalization is a human being - for in our world it is human beings who are the prototypical 'possessors' - as well as being the prototypical Agents, Cognizants, etc., and so the 'typically first' PRs in a clause. (See Chapter 2 of The *Functional Semantics Handbook* for the full list of PRs.)

The final point to note is that there are many types of meaning that are found in a full clause but which are NOT normally found in a nominalization. Typically there is no expression of any of the strands of meaning other than the experiential (though we have seen an example of **validity** in *a possible descent*). But there are also certain types of experiential meaning that usually go unrepresented, such as those expressing power and volition (unless these are themselves made the head of a nominalization, as in *his willingness to visit me* and *her ability to ski.* Concepts that are typically expressed through the Operator and the Auxiliaries are typically omitted from nominalizations, because the language has not found equivalent elements for them in the nominal group. What gets priority, then is the Process and its attendant Participant Roles, with certain types of Circumstantial Role such as Manner

squeezing in occasionally.[3]

3.2.5 Two motivations for varying the sequence of PRs in nominalizations

There are interesting patterns of variation in the SEQUENCE in which elements can be presented in Type 1 nominalizations (and also in and Type 2 nominalizations). This may seem an unlikely claim, at first sight, because we know that the elements of the nominal group are fixed in their sequence. Yet we will find that there is scope for

1 **thematizing** a PR, rather as happens when one of two PRs is chosen to be the Subject Theme of a clause, and

2 placing a PR or CR at the end of the nominal group, where it is in a **potentially new position** (i.e. where it is likely to receive the **tonic** syllable and so be marked as 'new' information).

How are these variations achieved? In both cases it is done by by allowing the PRs to be conflated with with more than one element. So it is NOT the case that the elements of the nominal group occur out of their usual sequence (as often happens in the structure of the clause), but that a different PR is conflated with the element from the typical one. (It is the typical conflations that were described in the previous section.) But the effect is the same - i.e. to thematize the PR or to make it 'potentially new'.

Let us begin to sketch in the picture of variation in the structure with the simplest type of variation of all: the OMISSION of an element. Most obviously,the Circumstance of Manner in the nominalization in (7) can be omitted, as in (8) - just as it can in a clause. This is simply part of the general pattern that Circumstances are not inherently demanded by the process, whereas PRs are.

(8) Ivy's descent of the ridge ....

The analysis of (8) would be exactly as for (7) in Figure 2, but without the modifier. But now consider (9):

(9) The descent of the ridge by Ivy ....

Here, the PR that is typically the Subject is placed at the end of the structure, as a SECOND QUALIFIER. The analysis (using the simplifications licensed above), is as in Figure 7:

3. It is possible, of course, to express virtually any type of meaning in a nominal group, since virtually any type of meaning can be talked about. So we have nouns that refer to VALIDITY, such as *possibility*, and nouns that express the combination of MOOD and POLARITY, such as *denial.* These are cases of what we might think of as the 'experientialization' of meanings that are typically expressed in other strands of meaning. But this is not what we are considering here - which is the ways in which English makes it possible to express aspects of the meanings of **events** through the structure of the **nominal group**.

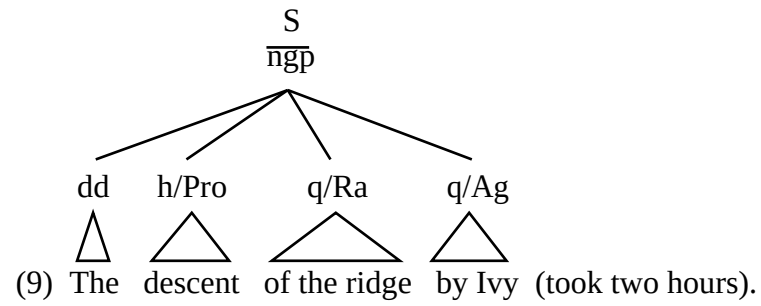


Figure 7: The analysis of a Type 1 nominalization with a final Agent

Notice that one side effect of placing the Agent (*Ivy*) at the end of the ngp as a qualifier is that the 'possessor' role in the cluster at dd is left empty. But it need not be empty, because we can **thematize** the PR that typically comes second, i.e. the Range, as in (10):

(10) The ridge's descent by Ivy ....

In other words, just as it is possible in the clause to reverse the typical sequence of PRs by associating the Range with the Subject and the Agent with the Complement, so too it is possible in a nominalization to reverse the sequence of the Agent and the Range, by similarly associating each with the non-typical element. So:

(9) Ivy's descent of the ridge is to (10) the ridge's descent by Ivy as
Ag Pro Ra Ra Pro Ag

(9a) Ivy descended the ridge is to (10a) The ridge was descended by Ivy
Ag Pro Ra Ra Pro Ag

Finally, notice that these variations in which PR is to be thematized within the nominal group are complemented by equivalent variations in which PR comes last, and is therefore **potentially new**. (It will only be 'new' if no other options prevent it from coming last in the intonation unit in which it occurs, and if no element is 'contrastively new'.)

At this point you may wish to try to put into practice some of these new analysis skills. If so, I suggest that you analyze (9) and (10), doing both on the model of Figure 7. If you feel confident you could then go on to analyze (10) on the model of Figure 6. If you have any problems you should find the solution quite straightforwardly by examining Figures 6 and 7.

3.2.6 The omission of PRs

Finally, we come to the ways in which Participant Roles may be omitted.

First, the Performer (P) can easily omit the first PR, by the simple device of having the dd directly expounded by *the*, as in (11a):

(11a) The descent of the ridge (took two hours).

Interestingly, this is rather simpler than the only possible way to make the Agent covert in a clause, which is to use a passive construction, as in (11a):

(11a) The ridge was descended (in two hours).

The analysis of (11a) is the same as that in Figure 7 above - but with only one overtly realized qualifier, i.e. as in (11b)

(11b) the [dd] descent [h/Pro] of the ridge [q/Ra] ([q/Ag]).

Notice that the covert PR of the Agent that did the 'descending' is shown in rounded brackets, as unrealized PRs always are. Since the first role in most types of Process is one that is typically a human being, and since humans are often responsible for events which they wish they had not caused, this version of the construction is in fairly frequent use. (There are of course other reasons why one might wish to omit a PR, as we saw in section 5.5 of Chapter 5.)

Now consider (12a):

(12a) Ivy's descent (took two hours).

The analysis is as in Figure 7 above, but with no overtly realized qualifiers, i.e. as:

(12b) Ivy's [dd/Ag] descent [h/Pro] ([q/Ra]).

As in the last example, the covert PR is shown in rounded brackets. But this time the covert PR is the object that was descended.

Surprising though it may seem, it is even possible to express a difference of Participant Role with just one overt PR and so just one overt qualifier. Consider the difference between (13) and (14):

(13a) The descent by Ivy (took two hours).
(14a) The descent of Ivy (took two hours).

Example (14) simply employs the pattern we met earlier in Example (9), as analyzed in Figure 7 - but with the first qualifier being covert. The analysis is there fore as in (13b):

(13a) The [dd] descent [h/Pro] ([q/Ra]) by Ivy [q/Ag].

But what is the meaning of Example (14a)? The most plausible context for (14a) would probably be one in which Ivy herself was being descended - perhaps by a pet mouse that was crawling down her body. This is because the word *of* usually signals that what follows is the 'typically second' PR - i.e. here the Range. In this case the analysis is as in (14b):

(14b) The [dd] descent [h/Pro] of Ivy [Ra] ([Ag]).

However, it is also possible for *of* to introduce a 'typically first' PR, such as an Agent, and in this case the analysis should be as shown in (14c):

(14c) The [dd] descent [h/Pro] of Ivy [Ag] ([Ra]).

One well known example of this type of ambiguity is shown in Example (15a)

(15a) The love of God (will save you from going to Hell).

Does this refer to God's loving you or your loving God? Again, we cannot tell. So the fact is that it is possible for the word *of* to introduce either the first or the second of two possible PRs. And a final example is given in (16):

(16) The shooting of the hunters (was pretty bad).

What is the meaning? Once again, it clearly has two meanings, but we simply cannot tell which is intended without contextual clues.[4]

3.2.7 Summary of the formal markers of Participant Roles

Let me now try to summarize what we have learnt about how to recognize which Participant Role is which.

Firstly, we have seen that there are three ways of marking the presence of a PR:
by a following 'apostrophe s'('*s*) at g in a genitive cluster,
by a preceding *of* in a pgp at q, and
by a preceding *by* in a pgp at q.

It would be convenient if we could say for each of these markers that it always indicated either the typically first or the typically second PR. But unfortunately this is not the case, as we have seen. However, if we bring probabilities into the picture, it is possible to state certain generally applicable guidelines. We can say:

1 The word*by* always and only marks the 'typically first' role.
2 The word *of* nearly always marks the 'typically second' role (perhaps 99%) and
3 The 'apostrphe s' ('s) usually marks the 'typically first' role (perhaps 90%).

If you put these guidelines together with a common sense interpretation of the text in its context, you are likely to be able to handle most cases. But decontextualized expressions such as *the love of God* and *the shooting of the hunters* will continue to be liable to two different PR analyses. In terms of their 'basic' syntax, however - i.e. the analysis that omits the PRs - the analyses of the two meanings of each are identical.

4. The ambiguous example of *the shooting of the hunters* is in fact a Type 2 nominalization, but I include it here because it is a particularly well-known example of the point that is being made.

3.2.8 The omission of all Participant Roles

Finally, we come to what is perhaps the most important variation of all within the Type 1 nominalization. It is particularly important to learn to recognize this type of variation, because if we do not we may fail to notice that a nominal group is a nominalization. This is the type in which all roles have been cut out, whether Participant Roles or Circumstantial Roles, as in (17).

(17a) The descent (took two hours).

This example has the form of a simple nominal group, with just a deictic determiner and a head. In other words, the event of 'someone's descending something' has been reduced to just the Process itself - and it is not even expressed as a verb. The analysis, of course, is once again exactly as in Figure 7 - but without either qualifier being overt. So we can represent it in our linear notation as in (17b):

(17b) The [dd] descent [h/Pro] ([Ra]) ([Ag]).

By reducing the expression of an event to this form - which is to give it a structure that is identical with the second most frequent type of congruent nominal group - the disguise of the event as an object is carried to its logical conclusion. And the frequent effect is that we do not even perceive it as an event - even though there is a closely related verb such as *descend.*

Sometimes there is not even an equivalent lexical verb to remind us that what we are referring to is really an event. For example, we can accept that in *Wellington's defeat of Napoleon* the word *defeat* refers to a 'defeating' event. But what about *Wellington's victory over Napoleon*? The nearest equivalent lexical verb to *victory* is *vanquish*, and this is no longer in regular current usage.

3.2.9 The additional semantic potential of nominalizations

The head of a nominal group in a Type 1 nominalization is an event noun, such as *descent.* And an event noun is like other nouns in having the potential to use the many elements of the nominal group to express a wide range of meanings. Not all of the elements lend themselves to exploitation in the specification of events, but surprisingly many do.

In the last few sections, we have been reducing the nominalized event progressively to the point where only the Process itself is left, as in *the descent.* But now, using the system networks of meanings associated with 'things' , we couold - in principle - expand on the 'noun' side of the event noun, and show how event nouns can occur at the head of nominal groups with very many of the meanings - and so the elements of structure - that we have met in the chapter on the nominal group (Chapters 6 and 14). We can refer, for example, to *two of those fine descents, the best of the descents that we made last year*, and so on.

Indeed, we could have introduced many of these 'object-oriented' types of meaning earlier in this section, combining the notions of 'a nominalized event' and 'the meanings of things'. So we can talk and think, for example, about *the film of*

the finest of Ivy's seven elegant Winter descents of the ridge that she did with Fiona last year.. If you analyze that nominal group, you will find that four of the elements have associated with them semantic roles that typically occur in the clause, while the rest are derived from the semantics of 'things'. (The four are, of course, the Process, the two Participant Roles, and the Manner Adjunct *elegantly*.[f]) But there is no need for this - because these structural options have already been covered in those earlier chapters.

In the next two sections we will look at the other two types of nominalization, and show the analyses for each. The sections will be very much shorter, because we have covered most of the essential ideas in the present section, in considering Type 1 nominalizations. Then in Section 3.6 we will ask the question 'Why does the Perfdormer of a text-sentence choose one type of nominalization rather than another?

3.3 Type 2 nominalizations

A Type 2 nominalization is exactly the same as a Type 1 nominalization, except that the head of the nominal group is expounded by a **lexical verb**. The example that we first met in Section 2 (but in the context of *We watched* ...) is presented again below as Example (4):

(4) Ivy's careful descending of the ridge (took two hours).

The analysis of (4) is similar in most respects to the analysis of (7) in Figure 6, as a comparison of Figures 6 and 8 will show.

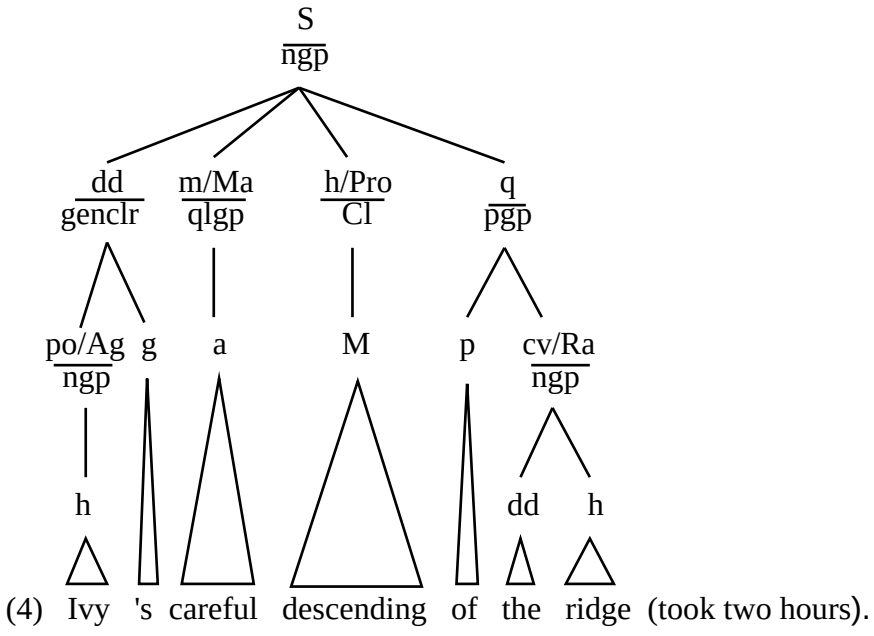


Figure 8: The full analysis of a typical Type 2 nominalization

The main difference between the two analyses is that the head of the nominal group in Figure 8 is no longer simply filled by a noun. Instead, it is filled by a clause with only a Main Verb.[5]

It follows from the similarity in all other matters between Figures 6 and 8 that the points made in each of Sections 3.2.1 to 3.2.8 apply equally to this type of nominalization. I will therefore not repeat them here. The examples of a Type 2 nominalization that correspond exactly to those discussed in Section 3.2 are as follows:

(18) Ivy's descending of the ridge (took two hours).
(19) The descending of the ridge by Ivy ....
(20) The ridge's descending by Ivy ....
(21) The descending of the ridge ....
(22) Ivy's descending ....
(23) The descending by Ivy ....
(24) The descending of Ivy ....
(25) The descending ....

The one remaining question is what the analysis should be when the realization of the process extends over more than a single word. The answer is that, if the Process would be expressed in a clause as M + Mex, both become part of the head in a nominalization, e.g. as in (26):

(26) The [dd] putting out [h/Pro] of the fire [q/Af] ([Ag]).[6]

As in earlier examples, the covert Agent in the Process of 'putting out' is shown in rounded brackets.

3.4 Type 3 nominalizations

The example of this type of nominalization that we met in Section 2 (in the context of *We watched* ...) is reproduced here as (5):

(5) Ivy's carefully descending the ridge (took two hours).

5. The reason why the lexical verb *descending* cannot fill the head directly is that the grammar generates lexical verbs as exponents of Main Verbs. If we wished it to generate lexical verbs as either expounding a Main verb or the head of a nominal group, we would need to state every realization rule that generates a lexical verb twice, each with the relevant condition - once to generate lexical verbs for Main Verbs and once to generate them for the heads of nominalizations. And, as we will see when we come to the Type 3 nominizations, that type requires us to introduce a Clause as the filler of the head, so we give much weight to a possible aregument that heads of nominal groups should not be filled by clauses'.

6. These would be generated by first generating the 'base' of the Main Verb *put*, and the generating the *-ing* form as a suffix in the usual way, and finally generating the item *out* (preceded by a space) as a further suffix.

In this type the head of the nominal group is filled by a **partial clause**, as shown in Figure 9:

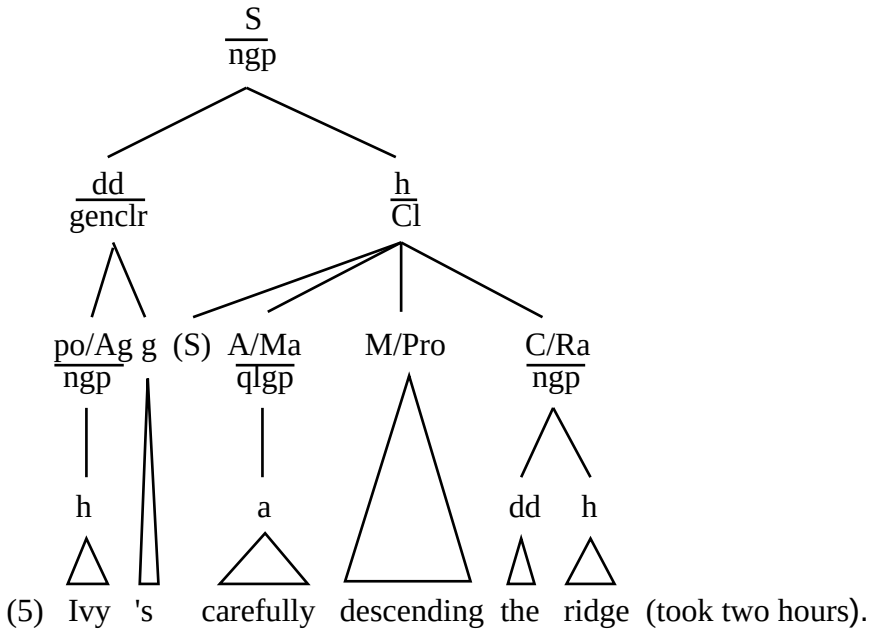


Figure 9: The full analysis of a typical Type 3 nominalization

This type of nominalization occurs very much less frequently than the other two. (See Section 3.5 for some possible reasons for this.) It is, in a sense, a hybrid between a Type 2 nominalization and a 'partial' clause such as the underlined portion of *We watched Ivy carefully descending the ridge*, in that all of the clause except the the 'typically first' PR occurs within the head - with the 'typically first' PR being assigned the role of 'possessor'. In this respect it is like a Type 2 nominalization, but in most other respects it is not.

Unlike Type 2, very few of the points made in Section 2.2 about Type 1 nominalizations are relevant here. The reason is precisely the fact that so much of the meaning is locked away inside the head, so that there is not the scope for taking a PR and making it function as one or other of two different elements of the nominal group, as can occur, as we have seen, in a Type 1 nominalization. The result is that, unlike the other two types of nominalization, there are no possible variants of the example, in which the sequence of PRs can be changed or an overt PR may be made covert.

3.5 The essential difference between Type 1 and Types 2 and 3

We come, finally, to the question : 'How does the Performer of a text decide between the three types of nominalization? We have already seen that it is only Types 1 and 2 that are open to the full range of variations with a nominalized event, so that it is these two that are the most frequent types.

Type 3 nominalizations are relatively infrequent, and whn they do occur they are typically found in written texts. But even then they often strike the reader as rather stilted. Their main advantage over the nearest equivalent Type 2 nominalization

(e.g. *Ivy's careful descending of the ridge*) is that they avoid the use of the preposition *of*, which may be interpreted as excessivly formal. The result is that, when no other considerations influence the choice (such as the wish to leave a role covert) the Performer may prefer the Type 3 construction over the Type 2.

The major choice would therefore appear to lie between a Type 1 and a Type 2 nominalization. There is one great problem about Type 1 nominalizations, however, which is that it isn't always the case that one is available. In other words, before you start planning the nominal group in which the nominalized event is to be expressed, you need to know whether or not there is a **noun** in English that corresponds in its meaning to the **predicate** in the event that you are referring to.[7]

Consider the trios of items set out in Figure 10. (This set of examples has been selected almost at random, and most natural texts would yield a set which would illustrate a broadly similar set of points.) The table illustrates the fact that, if (1) an event noun is available, and (2) IT CARRIES THE SAME SENSE AS THE EQUIVALENT LEXICAL VERB, it is typically the preferred type of nominalization. In other words, where there is a choice, the Type 1 nominalization is normally much more frequent than the Type 2 nominalization. Why should this be so? The answer lies in the fact that I pointed out in Section 3.2.9, namely that one of the motivations for using a nominalization rather than a clause is to enable the Perfomer (P) to present the event as if it was a type of abstract object. P may want to do this for one or more of the reasons suggested in Section 3.1.1, but it may also be because P wishes to make use of the additional range of meanings that becomes available once one decides to use a Type 1 or a Type 2 nominalization, and so enter the system network of choices that are available for making meanings about 'things'. And the Type 1 nominalization is preferred because it is more like a prototypical nominal group, since it has a noun at its head rather than a lexical verb.[8]

7. The **predicate** is the term in the logical form that represents events in the belief system that corresponds to **Process** in the semantics.

8. The Type 3 nominalization has very little of the structure of a full nominal group, as we have seen, and this reflects the fact that this type of nominalization has available to it very little of the full richness of the system network for 'thing'.

		lexical verb (in a full clause)	**event noun** (Type 1 nominalization)	***-ing* form of lexical verb** (Type 2 nominalization)
Test:		X --ed Y	X's -- of (etc) Y	X's -- -ing of (etc) Y
(a)		love	love	loving (infrequent)
		like	liking	liking (infrequent)
		hate	hatred	hating (infrequent)
		dislike	dislike	disliking (infrequent) etc.
	but	hit	hit **(limited)**	hitting
	and	touch	touch **(limited)**	touching etc.
(b)	also	pollute	pollution	polluting (infrequent)
		destroy	destruction	destroying (infrequent)
	and	know	knowledge	knowing (infrequent)
	etc.			
	but	see	sight **(limited)**	seeing
(c)		own	ownership	owning (infrequent)
	and	possess	possession	possessing (infrequent)
	but	have	-	having
(d)		exist	existence	existing (infrequent)
	but	be	-	being
	and	become	-	becoming
(e)		acquire	acquisition	acquiring (infrequent)
	but	get	-	getting **(limited register)**
(f)		create	creation	creating (infrequent)
	but	make	-	making
	and	save	-	s a v i n g
		etc.		
(g)		depart	departure	departing (infrequent)
	but	go away	-	going away
		give up	-	g i v i n g up
		etc.		
(h)		look at	look at **(limited)**	looking at
	but	listen to	-	listening to
	and	dispense with	-	d i s p e n s i n g with
		etc.		
(i)		tolerate	toleration /- ance	tolerating (infrequent)
	but	put up with	-	putting up with
	and	get away with	-	g e t t i n g a w a y

with etc.

Figure 10: Some examples of varying preferences between types of nominalization

As the examples in (a) in Figure 10 show, some of the apparently equivalent event nouns have specialized senses, and they do not meet the test at the head of the **event noun** column (e.g. *hit* and *touch*). The inclusion of the word *sight* in (b) illustrates the difficulty of making clear statements in this area. *The sight of the sea raised everyone's spirits* sounds natural, but if the 'typically first' PR is made overt, as in*Ivy's sight of the stage was interrupted by a pillar*, the sentence sounds a little awkward, and the word *view* would probably be preferred.

The major point that Figure 10 illustrates is that, when there is an event noun that is genuinely equivalent to the lexical verb, it is typically the Type 1 nominalization that is preferred. This may at first seem surprising, given that Type 2 and Type 3 nominalizations are 'productive' (in the linguists' sense that they can be used with absolutely any lexical verb) - while Type 1 is not. The fact is that, while very many high frequency lexical verb do have a corresponding event noun, there are many others that do not - including many of the most frequent verbs of all. See (c), (d), (e) and (f) in Figure 10, where certain very high frequency lexical verbs that lack an equivalent event noun are contrasted with semantically similar but less frequent verbs that do have one. And (g), (h) and (i) illustrate the fact that 'phrasal', 'prepositional' and 'phrasal prepositional' verbs do not normally have an equivalent event noun.

Assuming that an event noun is available, there are many factors that may contribute to determining whether or a not the Performer of a text-sentence will decide to use one. In other words, the fact that an event noun that corresponds to the predicate exists is not sufficient, in itself, to ensure that a Type 1 nominalization will be chosen. The decision may depends on **register** variables such as the **mode** and **tenor** (degree of formality) of discourse (e.g. the avoidance of a formal-sounding event noun, as in *his purchase of the house*, in favour of a less formal lexical verb, as in *his buying of the hous*e. Alternatively, the reason may be to avoid a taboo term such as *erection* in *his erection of the scaffolding*, where *his putting up of the scaffolding* may be preferred. Other factors may influence the decision, such as the Performer's social, geographical or temporal **dialect**. In some cases the conditioning factors may include the conjunction of the meanings of individual lexical items with specific social groups (e.g. the frequent use of terms such as *ascent* and *descent* as part of the technical vocabulary of mountaineering and rock climbing). And there is also variation between the speech styles of individual persons, i.e. between **ideolects**).

The fact that we do not know whether we can use a Type 1 nominalization until we know whether or not a particular lexical item exists presents a problem to those whose task is to build a generative grammar of English, but from the viewpoint of text analysis - which is our concern here - there is luckily no problem at all.

3.6 A summary of the three types of nominalization

XXX Change the following section numbers to 4.XXX

3 Objects as clauses: the referent-as-role-in-event construction

3.1 Overview of the construction

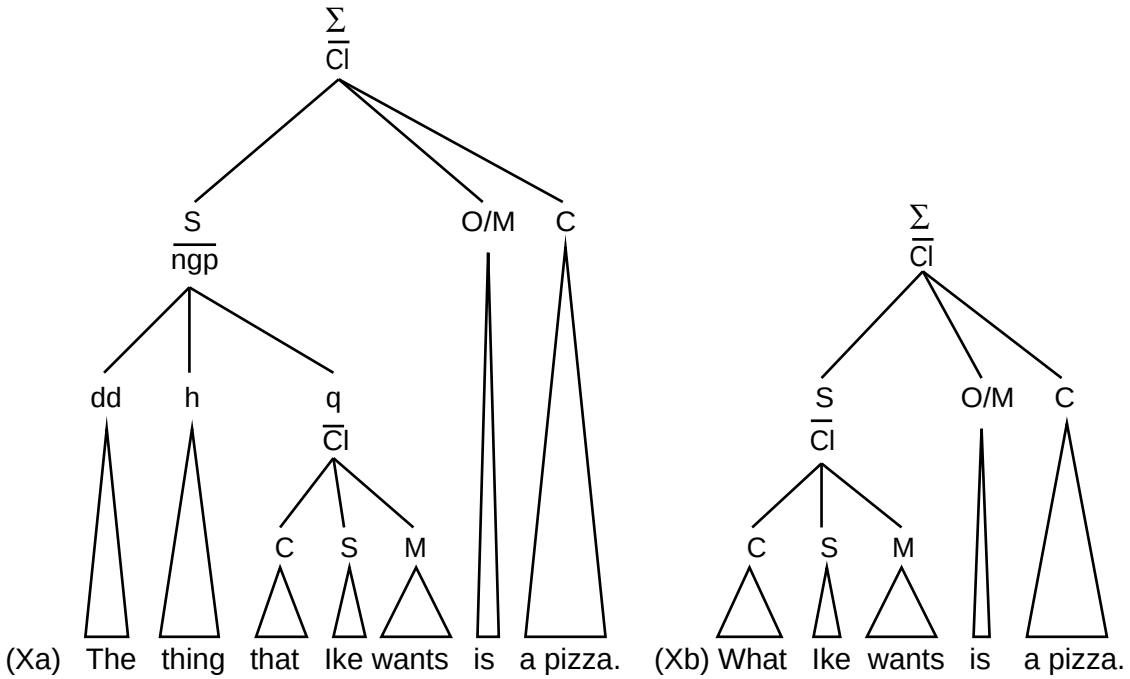
In Section 2 I gave (Xa) as a typical example of the case where the performer (P) refers to an object by the use of a clause:

(Xa) What Ike wants is a pizza.

To understand how the structure in this sentence works, it is helpful to note that P could have said instead:

(Xb) The thing that he wants is a pizza.

If we look carefully at the structures of these two sentences, we will be able to see how the functional syntax reflects the different semantic functions that the two constructions serve.



As the analysis of (Xa) shows, *the thing that he wants* is a straightforward nominal group - though one which has at its head the highly generalized noun *thing.* Yet in (Xb) *What Ike wants* is a clause. The fact that (Xb) can be used with virtually the same meaning as (Xa) shows clearly that *what I need* in (Xb) does indeed refer to an object. The difference is that, in (Xb), P has chosen a syntactically - and so semantically - more economical option: she has chosen to refer to the object by identifying it BY ITS ROLE IN AN EVENT. A comparison of the two analyses suggests why, in those cases when either of the two structures can be

used, the type illustrated in (Xb) is more economical. As you can see, a whole layer of structure does not need to be generated and interpreted.g

Let's consider the functions that these two constructions serve a little more closely. The fact is that, in cases such as these, you can refer to the object

> EITHER by processing the object in the lexicogrammar as an object, and so setting up a nominal group - and then choosing the FURTHER option to specify the object by its role in an event, so introducing a clause at the qualifier of the ngp (as we saw in Chapter 12 and as is summarized in Chapter 20),
>
> OR by specifying it by its role in an event (so introducing a clause directly).

When the second option is available, it is clearly an attractive one in terms of economy of structure.

3.2 The two discourse functions served by this construction

It also serves at least the following two discourse functions.

Consider the situation where, when the performer (P), when speaking to A, wishes to refer to some object (or, as we have seen, an event) and she judges that the most prominent memory of the object for A is **in terms of its role in some event.**

The **necessary condition** is:

1 Both P and A know about the event.

Some **supporting conditions** which will motivate P even more strongly to use this construction are the following:

1 P and/or A were themselves participants in the event, and/or

2a P has strong feelings about that event and/or about an object involved in it, or
2b P believes that A has strong feelings about that event and/or an object involved in it, or
2c Both 2a and 2b.

and/or:

3 P and/or A observed the event.

The motivations provided for under 2a-c account for the frequency in this construction of the following verbs, typically in the 'present' tense:

(a) following *what I/you/we* (and also outsiders such as *he/she/they*):

want (most) need (most),

(b) following *what I/we* (and also outsiders such as *he/she/they*):
adore (most), love (best / most), like (best / most), prefer, enjoy (best / most);
loathe (most), hate (most), dislike (most),

The motivation provided for under 3 accounts for the frequency in this construction of the following verbs (especially referring to past time, and following *what I/you/we*):

see, hear, notice etc.

One characteristic of all these mental processes is that the Phenomenon is itself often an event, so further typical sets of patterns include:

What I want to know is .... and *What I want you to do is ....*

Discourse function 2 Consider the situation where P is speaking, but suddenly finds that she cannot quickly locate a noun that will sufficiently identify the object (a noun being a 'meaning-form' bonded sign, with both a form and a meaning). In this situation P can still choose one or other of

The X that I saw was ... (where *X* is *thing* or some other very non-specific noun) or
What I saw was ...

But if she uses the nominal group *The X that I saw*, she will give away the fact that she is having trouble in locating the appropriate noun by her use of *thing*, and the attempt to avoid this slight embarrassment is probably quite a frequent reason for using this construction.

3.3 The Participant Roles: Carrier and Attribute

Most grammarians describe this construction as being 'equative' - in the sense that the object referred to in the nominalization is said to be a particular object, and the object that it is said to 'be' is also a particular object. This is often the case, but it is not necessarily so - as the examples we have been using so far demonstrate. The position is that, while the embedded clause expressing the object that is specified by its role in some event IS inherently a particularized referent - and typically one that refers to an earlier mention of the referent in the text - the Attribute may be 'particularized' or 'unparticularized' ('definite' or 'indefinite', in the terminology of traditional grammar). Thus we can say:

EITHER

What you saw was a badger (where *a badger* is 'unparticularized', i.e. a member of the class 'badger')

OR

What you saw was the badger (where *the badger* is 'particularized', i.e. a specific badger that you already know about - or, in other words, the one-member class of badgers that could be being referred to in the present circumstances).

In the grammar of Participant Roles (PRs) used here, the two PRs are always a Carrier and an Attribute - whether or not the second matches the first for 'particularization' ('definiteness') and 'number'). In other words, we are taking the position that, when we 'identify' one particular object as another particular object, this is simply the limiting case of class-membership: we are saying that the Carrier is a member of a single-member class. While the more common type is the case where the Attribute specifies a single-member class, the other type is quite frequent, as is shown by regularly used examples such as*What we need is a drink, What he needs is a good smack*, etc

For grammars which make a distinction between the Participant Roles of (ai) and (aii) and of (bi) and (bii), such that the second is a case of an 'Identified' and an 'Identifier', there would need to be a different analysis of (aii) and (bii).

(ai) John is a teacher (aii) John is the teacher
(bi) What I saw was a badger (bii) What I saw was the badger.

Here, however, we treat the 'equative' relationship of (aii) and (bii) as simply the limiting case of the 'class-inclusive' relationship. Surprisingly, Halliday himself has suggested a similar concept, saying (1994: 122): 'one way of looking at the identifying clause would be to say that here we are narrowing down the class in question to a class of one.' Yet he continues to recognize the 'Identified-Identifier' relationship alongside the 'Carrier-Attribute' one.

3.4 Can there be two referent-as-role-in-event constructions in one clause?

It follows from this that it should be logically possible to refer to TWO objects in this way within the same clause. And this does indeed happen regularly - but practically always with the verb *be,* as in (Y), (Z) and (A).

(Y) What you want is what I want.
(Z) What you see is what you get.
(A) What you were looking for just now is probably where you left it last night.

Note that, while (Y) and (Z)) are saying WHAT something is, (A) is saying WHERE something is - which shows that the construction is not limited to cases where the Complement identifies the Subject.[h] But all are cases of 'being'. At the end of the next sub-section we will return to the question of why it is so very rare to find two referent-as-role-in-event constructions in one clause.

3.5 The restriction to non-human objects

Finally, we should note a fact about these constructions that at first seems rather odd. Consider the extreme unlikeliness of (B):

(B) Who gave you this was Ivy.

While it is unlikely it is not impossible, because it could occur in the following context:

A: I've just remembered who gave me this - it was my dear cousin Chloe.
B: I don't think so. Who gave you this was Ivy.

So the influence of the preceding text may allow its use. Nonetheless, the most notable fact about it is its unliklihood. Yet it is natural to say:

(C) What you saw just now was the postman's van.

As these examples show, there is an interesting restriction on the use of the referent-as-role-in-event construction. The fact is that we are extremely unwilling to use it if the referent is a human being.[9]

There are several reasons why this construction should have become associated with non-human objects.[i] First, to refer to something or some person by its role in an event means that you are not identifying it in terms of its **permanent characteristics** - i.e. by stating what class of object it is, in terms of:

(1) the **cultural classification** offered by the **noun** senses of the language, and/or

(2) what **qualities** it has, in terms of the classification offered by the **adjective** senses of the language, etc, including the other meanings realized in the **modifiers** and **qualifiers**) and/or

(3) if it is human or a place - what its uniquely identifying (in principle) **name** is.

Let's remind ourselves briefly just what the resources are that the language makes available to us, when we want to refer to two major types of objects: 'persons' and 'non-persons').

If you wish to refer to a **person** other than the Adressee (i.e. a human (or a pet animal or some other type of object on whom 'personhood' has been bestowed), you have the following THREE main ways:

9. Or when it is a group of humans or an animal or other object on whom 'personhood' has been conferred, i.e. an object that would be referred to by *he* or *she*, rather than *it*.

1 the use of a 'third person' **pronoun** (these being differentiated by both number and gender - so a powerful tool for identifying persons),
2 the use of a wide range of types of **proper name**, and
3 the use of a nominal group with a **noun** or ***one*** at the head.

But if you wish to refer to a **non-human object** (other than a place with a name) you have ONLY TWO of those three possibilities - and, of the two, the first is much less discriminatory than it is for persons):

1 the use of a **pronoun** (differentiated by number only, so a less powerful tool for identifying non-persons than it is than for persons), and
2 the use of a nominal group with a **noun** or ***one*** at the head.

So it would be reasonable for users of the language to compensate for the fact that proper names are hardly ever available for identifying objects that are non-personss (other than place names) by adding a third way of identifying non-human objects:

the use of the object-as-role-in-event construction.

This provides us with at least some justification for what otherwise seems an arbitrary fact of grammar.

I said above that there were three main ways of referring to a human being. There is in fact a fourth, and it provides an exception to the generalization that we don't use the referent-as-role-in-event construction to refer to persons. This is the use of *whoever*, as in (D):

(D) Whoever cooked this meal knows their job really well.

Notice that such constructions are used in precisely the situation where P does NOT know who the person is, so the option to use a proper name is not available. Indeed, it isn't easy to use a pronoun either, as (E) and the use of the indeterminate *their* in (D) shows.

(E) He/she who cooked this meal knows their job really well.

Finally, let's return to the question of why it is so unusual to find the referent-as-role-in-event construction more than once in any clause other than one with be as its M. The answer is simple - but will only become fully clear when we consider the possible configurations of Participant Roles in English. The fact is that, apart from the Processes of 'being', virtually all Process types with two or more PRs typically involve one or more PRs that are human. No doubt it is precisely because we ourselves are human that we have such an anthropocentric view of the array of types of TRANSITIVITY. The statistical analysis of texts shows that there are usually one or more human participants in the events about which we talk and write to each other, and the areas of the grammar where we find the greatest richness reflect our natural interest in ourselves as a species - as in the different types of participant role found in Chapter 2 of The *Functional Semantics Handbook* shows.

It is this fact that accounts for the relative rarity of clauses containing more than one Participant Role that is not a human - and so, since we do not normally use the referent-as-role-in-event construction as a way of referring to humans - to the relative rarity of clauses containing TWO referent-as-role-in-event clauses. Nonetheless they do occur occasionally, when the appropriate circumstances arise - e.g. in *What you want is what I want, What you see is what you get,* etc.

3.6 The relation of an referent-as-role-in-event construction to its simple equivalent

In many grammars sentences such as

(Xb) What Ike wants is a pizza.

are related directly to

(F) Ike wants a pizza.

For reasons that will become clear in Chapter 22, we will defer a consideration of the relationship between (Xb)and (F) to that part of the handbook. But the point should be made that, in the functional framework that we are developing here, the referent-as-role-in-event construction is NOT a 'special construction,' in the sense of the term used in that chapter.

(G) It's a pizza that he wants.

We will come back to the referent-as-role-in-event construction again in Chapter 22, but only because it will be helpful to show the relationship of (Xb) to (F) and to (G). But to do this we will need need to think in terms of the logical forms of each.

The referent-as-role-in-event construction is an incongruent construction, - just as are the various types of nominalization that we examined in the first part of this chapter.

3.7 The syntax of the construction: what does the clause fill?

In the examples cited so far, the clause that realizes a referent as role in event construction has always been shown as filling a clause element. But clearly it can also function at other positions in syntax, e.g. as the completive in a prepositional group. But now consider this example, uttered by Alex, aged 3.9 (so demonstrating its centrality in the language):

(Ha) Mummy, I want some of what you've got.

Clearly, the relationship of *some of* to what follows is the same here as in *some of that mashed potato* - i.e. *some* is a quantifying determiner and the following *of* is a selector. So what is *what you've got*? Clearly, it can only be modelled as a clause that fills the head of a nominal group, of which *some* and *of* are also elements, as in

(Hb) *some* [qd] *of* [v] *what you've got* [h].

This leads to the question: 'Should ALL referent as role in event constructions be shown as filling the head of a nominal group, which is typically the only element in the group?' The answer is that it is not necessary to add thid extra layer to the structure in every case.

3.8 The *all*-construction

There is a construction that is apparently similar to *What I want is...* This is:

(XX) All I want is a cup of tea.

But in fact this is structurally more like *The thing that I want is a cup of tea*, as the optional presence of *that* after *all* indicates. Thus

All I want is a cup of tea	is to	*All that I want is a cup of tea*	as
The thing I want is a cup of tea	is to	*The thing that I want is a cup of tea.*	

In such examples the Subject is filled by nominal group that has no head (as occasionally happens in other cases). The analysis is qd q, i.e.with *all* as the qd and a clause as the qualifier.

4 Other types of incongruence

So far in this chapter we have considered:

events presented as **nominal groups** (rather than, as they typically are, clauses) and
objects presented as **clauses** (rather than, as they typically are, nominal groups).

It is reasonable to ask: 'Are there any other units in the belief system which are regularly presented incongruently?'
The answer is that there are - but they are not a problem. The clearest case is the incongruent way of expressing the Manner in which a Process is done. So we can say:

(H) He painted it very carefully,	or
(I) He painted it in a very careful manner,	or even
(J) He painted it with great care(fulness).	

All of these are the expression of the quality of 'careful(ness)'. If we take (H) as the congruent expression of the **Manner** of doing something, then (I) expresses a fully productive incongruent equivalent. In other words, you can re-express every

Manner Adjunct that is filled by a quality group with an adverb of manner at its apex as a prepositional group in which the preposition is *in,* and the head of the nominal group at cv is *way, manner, style,* etc. For the analysis of such prepositional groups, see Chapter 7.

The problems come with *care,* and indeed *carefulness.* The problem is to decide whether *care* is a quality, and so essentially the same as *careful* (which however is clearly derived, historically, from *care*) or an abstract object, like 'beauty', 'grace', 'affection', 'love' and 'disapproval'. All of these have adjectival correlates and some have verbal correlates. Does this mean that each is to be stored in the belief system as either an abstract object or a quality or predicate? These are issues for the person modelling the level of concepts, using logical form - and the fact is that, in a lexicogrammar whose semantic system networks generate the functional structures of English, all of them are simply the heads of nominal groups. It is not the task of the structural analysis to show the equivalences; this is appropriately done at the level of logical form.[j]

XXX FOR ADAPTATION, EXTENSION AND INSERTION AT THE RIGHT POINT

The 'thing-oriented' structure of the ngp can be borrowed without too much difficulty to express the meanings that are **qualities**. Thus, a quality may be expressed congruently, as in the quality group in the underlined portion of *She was extremely kind to me,* or incongruently, as in the nominal group in *She showed great kindness to me.* Thus the meanings that are congruently associated with a 'degree temperer + apex' structure (for which see Section 6) are re-expressed incongruently by a 'modifier + head' structure. (Indeed, it is the function of suffixes such as *-ness* to make this possible.) However, we need to note that cases of what we might call 'double incongruence' and even 'multiple incongruence' occur. As an example of 'double incongruence' involving the two types described so far, consider the problem of 'unpacking' *skill at chess* (as in *I have always admired his skill at chess*) . First, the meanings that would congruently be expressed through a clause functioning as the 'scope' in a quality group, as in *skillful at playing chess* are re-expressed as a nominalization of an event in *skilful at chess*. Here a clause with a Binder, a Main Verb and a Main Verb Extension is replaced by a prepositional group consisting of a preposition + completive, with the nominal group that fills the completive having a simple head-only structure. Secondly, the quality expressed in *skillful* is re-expressed as a nominalization, as in*skill at chess.* Thus an incongruent 'head + qualifier' structure replaces a congruent 'apex plus scope' structure.[k] Similarly, the meanings associated with **quantities** can often be expressed in a ngp. Compare the 'adjustor + amount' structure of the quantity group *very many* in *very many of them* with the 'modifier + head' structure of *large numbers* in *large numbers of them.* (See the later sections on these two units for further examples.) However, an interesting set of problems arises when the nominal group is borrowed to express **events** - these, of course, being typically expressed in clauses. This is because there is a poor match between the structure of the clause and the structure of the nominal group. The clause has a relatively large number of elements, all of which are designed to express the various meanings associated with a 'situation' and, when a situation is expressed in a ngp,

these have to be squeezed into a rather smaller number of elements - these being designed, moreover, for other types of meaning.

Halliday discusses such phenomena under the general heading of "grammatical metaphor" (e.g. Halliday 1994:340f.), but his term extends to cover certain other complications that we introduce, which I find it helpful to think of as the 'experientialization' of non-experiential meaning - e.g. saying *There's a possibility that he'll be there* rather than *He may be there.* See Fawcett (in preparation a) for a rather fuller picture. WHERE IS THIS 'fuller picture' GOING TO BE?

5 Summary and conclusions

XXX Complete and expand (briefly!)

The three broad types of nominalization are as follows:

> **Type 1**: where the head of the nominal group is expounded by a **noun** which corresponds closely to the **lexical verb** that would be used if the event was being expressed as a clause,
>
> **Type 2**: where the head of the nominal group is DIRECTLY expounded by a **lexical verb**, and
>
> **Type 3**: where the head of the nominal group is filled by a **partial clause** (which in turn contains a **lexical verb**).

In conclusion we can say that - from the viewpoint of syntactic analysis - it is only the incongruences whose analyses we have explained in Sections 3 to 7 that require special attention. This is because it is only they that introduce structural relationships that are not accounted for in Chapters 3 to

a. These concepts, which are considered by many systemic functional linguists who are working in a socially oriented framework to be outside the scope of their interest, are absolutely essential once one accepts the challenge of natural language generation. They are described more fully in many of the writings of those working on the COMMUNAL Project, e.g. Fawcett, Tucker and Lin (1993) and Fawcett (1993a). They were present in my earliest writings in the framework of SFL (Fawcett 1973a/81 and 1980), and they even have a brief mention in Berry's standard work *Introduction to Systemic Linguistics* (1977:40). There she cites Ellis' (1966) suggestion that one subdivision of 'situation' should be the 'thesis of situation' - something that is however ignored by most later systemic functional linguists, other than those working explicitly within the field of natural language generation.

b. The two types of incongruence upon which we focus in this chapter are, like the others that will be briefly introduced, types of what Halliday has called 'grammatical metaphor' (e.g. (1994:342f.). These two are the ones that intrude most spectacularly into syntax, because each of them introduces new probabilities as to what unit fills what element of structure, so making the task of syntactic analysis more complex than it would otherwise be. (Some types of nominalization, however, only become complex when we add the Participant Roles to the analysis - something that we will leave to the *Functional Semantics Handbook.*

c. It is likely that all of these three types of nominalization would be treated as 'grammatical metaphor' by Halliday (1994:340f.). However, 'grammatical metaphor' is a broad category for Halliday, and it includes several phenomena that would here be handled very differently. For example, one of the types that is foregrounded in the analysis of the 'Silver Text' in *IFG* is the use

of a Main Verb in a supposedly metaphorical sense. This typically occurs when an ‘action’ (or ‘material’) process that was originally borrowed as a living metaphor for a mental process becomes, in the course of time, a 'dead metaphor' - and so not a metaphor at all, but simply a new type of Process (and so a new member of the set of verb senses). We have met some of these in considering the range of types of unit that may fill a Mex (these being considered from the semantic viewpoint in Chapter 2 of The *Functional Semantics Handbook*). So here we treat many of Halliday’s cases of ‘grammatical metaphor’ as cases that do not involve the two interpretations that ‘grammatical metaphor demands - irrespective of whether the metaphor is living or dead (or is in transition between) - because the syntax is the same in the two cases. So from the viewpoint of the structural analysis such examples do not present a problem.

d. This 'reification' of the event is the semantic equivalent of the phenomenon that was conceived of by those working in the Chomskyan tradition as a procedure that occurs within syntax, i.e. as a syntactic transformation. While the functional approach to understanding language results in rather different analyses from those of purely formal linguists, we can agree at least that, in the matter of the incongruent relations being considered here, something does get turned into something else. The difference lies in the component of the overall model in which we think the change takes place. Here we see it as something that occurs at the level of **logical form**, as part of the planning for how to present some event to a particular addressee, in a particular context of situation. But nonetheless the event stll has to choose in many of the system networks associated with the clause, because it is precisely the meanings of the clausee compressed into the structure on the nominal group - so the term nominalization is, in these terms, fully appropriate.

e. The Main Verb in a clause and the head of a nominal group are 'pivotal' in the sense that the choicees of the semantic features that are realized in them strongly influence many other choices, and so the structures that are associated with them. In a looser sense of ‘pivotal’ - which reflects the analyst’s search to locate an element to which to relate the others - we can say that each isnot only always present but that each is almost always expounded by an item (but not absolutely obligatory, in either case).

f. In a small additional step, one could argue that the word *Winter* can be related fairly directly to the Time Position Adjunct *in Winter* in a corresponding clause, and the word *seven* can be related to the possible Repetition Adjuct *seven times* in the corresponding clause.

g. It is an interesting fact that few grammars actually tell us how they think such constructions should be analysed. Surely that is part of the task of a grammarian? Huddleston, for example, cites a set of examples including *I didn't like [what I saw]*, and comments: 'How the unbracketed portions of such examples should be analysed syntactically is quite unclear' (Huddleston 1984:402).

h. In fact this discussion should be taking place in terms of the Participant Roles, not the Subject and Complement, because it is those rather than S and C that the embedded clauses fill. Chapter 2 of The *Functional Semantics Handbook* adds this dimension to the analysis. Thus in (Y) and (Z) the PRs are Carrier and Attribute, and in (A) they are Carrier and Location. This grammar treats cases of 'equative' clauses as the limiting case of the 'class-inclusive' relationship, so needs to make no distinction in terms of Prs between *That's the badger* and *That's a badger.*

i. However, I know of no grammar which explores the question of why this is the case. Some simply point out this phenomenon, and most ignore it altogether.

j. All we can say here is that, in the approach taken here, these relationships are reflected, congruently, in the logical form, and **equivalence statements** then relate the matching concepts. Thus we assume that the influence of the word senses that are available in the lexicogrammar - and I emphasize that it is word **SENSES**, and not word **FORMS** that I am referring to - reaches right up into the conceptual framework of the belief systems of users of a language.

k. Here the adjective *skilful* is derived from the noun *skill*, but the historical development of the language is not relevant to the everyday user of the language. He or she does not process *happiness* (a noun derived from an adjective) differently from *joy* (the noun from which the adjectives *joyous* and *joyful* are derived). In a synchronic description of a language we need to be able to say, quite simply, that *happiness* and *joy* are both nouns that express 'qualities'. (Perhaps the fact that an acceptable noun can be derived from *joyful* by adding the suffix *-ness* is can be taken as an indication that *joyful* - and so *joy* - is indeed inherently a quality.)