‘Focus, Mode and Nucleus’

Carlos Gussenhoven

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1. Focus, mode and the nucleus

Introduction

This article argues for the hypothesis that the location of the nucleus of the intonation contour is rule-governed. The term ‘nucleus’ is taken to refer to what has elsewhere been discussed as the ‘nuclear syllable’ (Crystal 1969), ‘tonic’ (Halliday 1967a), ‘sentence stress’ (Schmerling 1976), ‘[1 stress]’ (Chomsky & Halle 1968), and ‘Designated Terminal Element’ (Liberman & Prince 1977) (ignoring certain differences of analysis, such as that between double-nucleus and single-nucleus interpretation of some contours). Drawing on the facts of English and Dutch, it does so by attempting to identify the linguistic options available to speakers that are relevant to the location of the nucleus. The main argument hinges on the assumption that the chief functions of the location of the nucleus are (1) to signal the focus distribution of the sentence and (2) to signal whether the sentence is or is not meant as a counter-assertion, with the proviso that in many instances the location of the nucleus allows of more than one interpretation of one or both variables. Section 1 devotes some discussion to the problem of predictability, while the concepts of ‘focus’ and ‘normal stress’ are explored in sections 2 to 4. Section 5 states the Sentence Accent Assignment Rule (SAAR), giving illustrations of its application. In section 6, special attention is devoted to the pragmatic effects of SAAR in subject + predicate sentences. Section 7 attempts to give a fuller definition of the constituents the rule refers to and puts a general condition on its application. Section 8 introduces the variable mode, while section 9 defines the problem of the location of the nucleus in sentences with minimal focus and introduces another accent assignment rule (PFR). A summary in the form of a set of propositions concludes the article. I should like to point out that most of the examples in this article are attested; it is only the more pedestrian ones that have been made up for the purpose of illustrating certain points.
1.0 Predictability vs free choice

Linguistic theories usually contain sets of elements, and rules that operate on those elements to form well-formed sentences. When linguists require such theories to have predictive power, they usually mean that, given a choice from a set or sets of elements, the rules will generate a sentence, or a number of sentences, that look like X rather than Y. If X is well-formed and Y is ill-formed, the theory is fine; if either is not the case, it is not. This would seem a fairly uncontroversial, if simplified, interpretation of what linguistic theories are about. It is not, however, the interpretation that linguists dealing with intonation, or more particularly with the position of the nucleus, have typically adopted. Before roughly 1976, when discussions like those in Schmerling (1976) and Ladd (1980) began appearing, there were basically two kinds of linguists, as described below.

1. Those who held that, given a syntactically well-formed sentence, the position of the nucleus ought to follow from the lexico-syntactic choices that the speaker has made. (Invariably, allowance was made for semantic factors to account for what is known as ‘contrastive stress’.) Chomsky & Halle’s Nuclear Stress Rule (1968) and the subsequent contributions to Language by those taking part in the debate about Bresnan’s modification of the way the NSR ought to apply (Bresnan 1971, 1972, Lakoff 1972, Berman & Szamosi 1972) fall in this category. Also Chafe’s discussion of ‘old’ versus ‘new’ information in sentence-type s (Chafe 1970) can be seen as belonging to this category in that the emphasis is laid on predicting the new-old distribution on the basis of syntactic structure. It is clear that this position does not correspond to the interpretation that was sketched above of what linguistic theories are like. Rather, those holding this view expected that, given a choice from sets of elements in one component of the linguistic system (syntax and lexis, or ‘transitivity’ in Halliday’s term (1967b)), it was possible to predict the final result as produced by another component (phonology, in our case intonational phonology). To make the same point perhaps over-emphatically: it is rather as if phonologists were to try and predict the lexico-syntactic content of a sentence on the basis of a given intonation contour.

2. Those who held that human beings are endowed with a free will and enjoy - in many societies - freedom of speech, and that therefore the position of the nucleus cannot be predicted. The nucleus is seen as a ‘highlighter’ of particular...
lexical elements and since speakers are perfectly free to highlight word A rather than word B or word C, it is futile to go on trying to find rules that will predict which one they will choose. This is the view that Bolinger adopted (1972) and that Schmerling borrowed to account for a sizeable, recalcitrant part of her data. To give an example, Schmerling (1976: 67) pointed out that the difference between

(1) This is the MAN I was telling you about

and

(2) This is the man I was TELLing you about

could not possibly be accounted for by any conceivable linguistic theory. Without wanting to argue about the validity of the observations made by Bolinger and Schmerling, it must be said that this view, too, is incompatible with the above sketch of what linguistic theories are supposed to be doing for us. In this view, the unexpressed demand that is put on the power of a theory is that, instead of predicting what a speaker's sentence will look like once he has made his choices from the sets of elements available to him, it will predict which choices the speaker will make. Even in variationist theory, which goes a long way towards predicting what speakers will do in what circumstances, such a demand would be unheard of. It is tantamount to wanting to predict what people are going to say.

The purpose of this article, then, is to identify the formal linguistic options available to speakers that are relevant to nucleus placement, and thereby define the boundary-line between this part of the linguistic system and pragmatics. That is, we do not pretend to be able to do more than predict the position of the nucleus given a choice from sets of linguistic primes. The reason for the choice is seen as falling outside the scope of the article proper, although it is not suggested that that choice is impervious to explanatory theories. Indeed, the question will be touched on at various points in the discussion below. It should be realised, however, that theories accounting for speakers’ choices cannot be of the same ‘mechanical’ type as theories that take speakers’ choices as their input. Rather, these will be probabilistic in nature, and be based on the fact that human beings are not only endowed with a free will, but are also reasonable. Thus, given the sentence in (3)
(3) They're beating a policeman up!

the location of the nucleus on policeman will have to be accounted for in terms of some (underlying) linguistic structure which determines this position. A Bolingerian objection of the type ‘the speaker could also have put the nucleus on up’ is therefore as valid as saying that the speaker could also have used a passive construction, or a lexically specified subject, or assault instead of beat up, or copper instead of policeman, or whatever. Just as the latter ‘objections’ do not generally count as relevant linguistic arguments, so the former objection, which incidentally represents an emendation that affects the semantics of the sentence rather more drastically than any of the lexico-syntactic ones, should be seen as irrelevant to the point at issue.

2.0 Focus

The first concept we will postulate is that of focus. Focus is seen as a binary variable which obligatorily marks all or part of a sentence as [+focus], i.e. no sentence can be entirely [-focus]. In the relevant examples, [+focus] is usually symbolised as underscoring, although more explicit symbolisations will also be introduced. The concept of focus has been discussed in the literature as focus (Chomsky 1969, Jackendoff 1972, Quirk et al. 1972, Dik 1978, Ladd 1980), comment (Bloomfield 1933, Kraak 1970, Schmerling 1976), rheme (Prague School), new (information) (Halliday 1967b, Chafe 1970, 1976), while their counterparts are called, respectively, presupposition (Chomsky 1969, Jackendoff 1972, Quirk et al. 1972) or deaccenting (Jackendoff 1972, Ladd 1980), topic, theme and given (Halliday 1967b) or old (information) (Chafe 1970, 1976). The definitions that these various terms are given are not the same, however, and may refer to such varied things as the intonation contours of utterances, preceding elements in discourse, thematic organisation, and the communicative intentions of the speaker. (For analyses of some of these concepts see Allerton 1978, Prince 1979.)

We will here leave ‘focus’ semantically undefined, but nevertheless assume that it exists as a formal category available in speakers’ grammars. It is important to keep the concept of focus, as a linguistic prime, distinct from, on the one hand, the reason or reasons why speakers mark part or all of their sentences as [+fo-
and on the other, what such a choice implies for the phonetic/syntactic realisation of those sentences. It is the latter relationship that this article is trying to come to grips with. It should be carefully noted that the relationship is not the other way around: we do not define focus on the basis of the position of the nucleus. Indeed, for all we know, a given [-focus] - [+focus] structure may well require the nucleus to fall outside the material marked [+focus]. It is also important to see that every sentence is marked for focus. We should not resort to a classification of sentences into e.g. ‘topic-comment sentences’ and ‘news sentences’, the way Schmerling (1976) does:

(4) Truman DIED (topic-comment sentence)
(5) JOHNSon died (news sentence)

since this can only lead to circularity in the description. If we carry this method to its logical extreme, we will end up with as many sentence types as there are intonation contours to be explained, and we could start all over again.

A third point to note is that focus marks semantic material, not syntactic constituents or words. Because there is, in general, a rather close relationship between semantic structure and lexico-syntactic structure, making it possible to associate semantic constituents with lexical or syntactic ones, our notational device of underscoring does not normally run into difficulties, certainly not in case of the three major semantic constituents recognised in this article: Arguments, Predicates and Conditions. Thus, Arguments (e.g. John, Mary) and Predicates (e.g. kissed) invariably correspond to some lexical material, and if any of these are [+focus], underlining is clearly unproblematic. This also goes for Conditions that are put on propositions (e.g. on Sunday as a condition on the proposition John kissed Mary), and any modifiers (e.g. silly John, beautiful Mary, last Sunday). If any of the above elements is incremented (e.g. John or Bill, kissed and fondled, on Sunday or Saturday), then one or both terms, or the relation between them, could be [+focus] (John AND Mary, etc.), and underlined. In many cases, however, the focus cannot be associated with any particular word. Trivially, this may happen when a speaker utters (6) in reply to Is this Beverley a bachelor?

(6) Well, this Beverley is a SPINster. YES.

which reply does not have the full semantic representation of spinster in focus, but only its component FEMALE. (The yes, of course, is added to confirm the
rest of the representation.) Such focus-markings are particularly relevant in the case of predicates, where the verb phrase breaks down into the elements polarity, tense, aspect, voice, and lexical item. Consider the following example.  

(7)

A (Tour guide in Canada): I want you all to speak FRENCH now
B (Tourist): I hadn't realised we were IN Quebec

In B's reaction, the [+focus] material is not realise plus the positive polarity of the embedded sentence. Note that even if we can associate the focus with a particular word, this does not necessarily mean that the nucleus goes to it. In (8), the element in focus includes certain special aspects, but the nucleus goes to to.

(8) But you do accept that there are certain special aspects TO this case?

It should also be observed that certain words do not themselves take part in the focus distribution (if we can exclude from consideration utterances in which such words are talked about, such as some of the ones that follow), but rather add to the meaning of the material that is [+focus]. Examples of such focus-governing morphemes are also, even, only, purely, etc. They tend to have a syntax of their own, and most of them are obligatorily assigned an accent by the accent assignment rules. (This particular rule is not stated explicitly here.) An exception is even, which is never assigned an accent: compare John/ALso vs Also/JOHN with JOHN even vs Even JOHN, where in the former case two accents are assigned, and in the latter only one. In terms of focus distribution such morphemes had best be regarded as governing the focus, a la Jackendoff (1972). Diagrammatically, the structures of (9) and (10) could therefore be represented as (11) and (12) respectively. (Note that the appended illocution-marker please normally falls outside the focus.)

(9) JOHN's on the dole even
(10) (Shall I bring John and Mary?) John ONLY, please
A final point to be made, already hinted at above, is that there is an upper limit to the amount of material to be put in a focus. By contrast, the tone group, like the sentence, has no upper limit, in linguistic terms. In (13) for example, there is a focus boundary within a tone group:

(13) *Strikes have been reported/in Gdansk*

Accent assignment rules apply as often as there are foci in the tone group. In section 5 the concept of focus domains will be dealt with.

Briefly, then, in the model proposed here, all sentences are obligatorily marked for focus. Accent assignment rules, taking the [+focus] material as their input, assign accents in a purely mechanical way. If there are more than one [+focus] stretches in a tone group, the assignment rules apply to all these stretches individually, with the last of these accents so assigned being the nucleus. In addition, as will be seen in section 6, the rules are sensitive to a feature mode, which is a binary variable specifying whether the sentence is meant as a count-erassertion or not.

### 3.0 The ‘meaning’ of [+focus]

While no attempt is made to define the semantic difference between [+focus] and [-focus] in any formal way, something ought to be said about what semantic material can be marked [+focus]. In order to account for intonational data, linguistic communication had best be seen as the manipulation by speakers of certain semantic material with respect to a discourse background, which could crudely be thought of as a set of propositions that speakers assume is shared by their
hearers. The first, from now on called the Variable, is what speakers obligatorily assign [+focus] to, while, in addition, [-focus] may be assigned to the Background. The term ‘Variable’ has only its semantic blandness to recommend itself. A more meaningful formulation might be that [+focus] marks the speaker's declared contribution to the conversation, while [-focus] constitutes his cognitive starting point. In this sense, the contribution causes a ‘Background update’, which term expresses the fact that after it, the Background has been modified. This formulation lays no claim on the predictability or otherwise of either the [+focus] or the [-focus] material.

The number of different manipulations of the Variable with respect to the Background that speakers can choose from is limited. It is suggested that these manipulations are signalled by the particular nuclear tone used to realise the nucleus. It is these manipulations, then, that are proposed as the meanings of the nuclear tones. These tones are thus seen to form an intonational lexicon (Liberman 1975, Ladd 1980), a paradigm of mutually exclusive units, each of which has a consistent meaning which is independent of whatever other semantic material goes into the construction of sentences. While the choice of any one tone always implies an addition to the semantics of the lexico-syntactic material in the sentence, the eventual semantic effect is always integrative with that material. To quote Liberman (cited in Ladd 1978):

The meanings [of words in ideophonic systems] are extremely abstract properties, which pick out classes of situations related in some intuitively reasonable, but highly metaphorical way: the general 'meaning' seems hopelessly vague and difficult to pin down, yet the application to a particular usage is vivid, effective, and often very exact. (Liberman 1975: 142)

While I neither subscribe to Liberman’s idea that these meanings are attached to holistic intonation contours, nor to his comparison of these meanings to ‘ideophones’, the sentiment expressed seems appropriate enough. This article is not about the meanings of nuclear tones. Yet, I should here like to give three examples of such tones, not just in order to illustrate what their role is, but mainly to demonstrate that the choice of nuclear tone may have an influence on our intuition about where the nucleus should be located in sentences presented in written form, as in this and many other articles. Three tones will be illustrated with the house is on fire as the Variable, to which no material from the Background is added. In section 5 it will be shown that this focus distribution re-
quires the nucleus to be put on house. It should perhaps be noted that this same nucleus placement would result if only the house was the Variable and be on fire belonged to the Background (as it is likely to do in a conversation about fires); this latter focus distribution is nowhere intended below.

1. One type of manipulation available to the speaker is adding the Variable to the Background, which will require him to use the nuclear tone fall. The corresponding sentence is

(14) The `HOUSE is on fire

Its meaning could be paraphrased as ‘I want you to know that from now on I consider the house is on fire to be part of our Background’. The speaker may of course have any number of reasons for employing this option: the sentence could serve as a warning, or it could be meant to signal to the hearer that the speaker has just made an inference. We will call this manipulation V-addition. It is of some interest to note that readers of isolated example sentences generally assume that this is the manipulation intended by the writer.

2. A second type of manipulation is the selection of a Variable from the Background, which would require the speaker to use nuclear tone fall-rise. The corresponding sentence is

(15) The `HOUSE is on fire

(The notation is British: the phonetic realisation of the fall-rise is a pitch-drop on house, and a pitch-rise on fire, with is on low in pitch, cf e.g. O'Connor & Arnold (1973: 13).) The meaning can be paraphrased as ‘I want you to take note of the fact that the house is on fire is part of our Background’. The pragmatic effects of this manipulation can be quite varied. It could be a reminder to the hearer that this Variable is in fact part of the Background (as an answer to, for example, a masochist's complaint that There are hardly any major personal tragedies these days!), or an expression of surprise over the fact that it should be. Again, just why the speaker chose to employ the semantic option he did employ is up to the hearer to determine on the basis of the pragmatics of the speech situation. We will call this option V-selection. It should be noted that white speakers must associate [-focus] with the Background and [+focus] with the Vari-
able there is no reason why the Variable could not be a subset of the Background, as it is in V-selection.

3.

A third type of manipulation open to speakers is to leave it up to the hearer to determine whether it is relevant for the Variable to be part of the Background or to be added to the Background, which will require him to use the nuclear tone rise. The corresponding sentence is

(16) The /HOUSE is on fire

Its meaning can be paraphrased as 'I will leave it up to you to determine whether we should establish this Variable as being part of the Background'. The interpretative possibilities are, as always, multiple. It could be a straightforward request for information, requiring the hearer to either confirm or deny that this Variable is part of the Background, it could represent a tentative guess as to whether it is, or it could, again, signal surprise, but unlike the V-selection sentence above, at the same time carry the implication of a strong appeal to the hearer for confirmation. We will call this option V-relevance testing.

It may be noted that 'V-addition' and 'V-selection' would appear to correspond to what Brazil has called 'proclaiming' and 'referring' respectively (Brazil 1975, Brazil, Coulthard & Johns 1980), while the distinction between 'V-addition' and 'V-relevance testing' might be seen as a more specific characterisation of what Cruttenden (1981) calls 'closed' and 'open', Note, however, that Cruttenden and Brazil group the fall-rise and the rise together.

These hypotheses concerning the meanings of these nuclear tones of English of course require testing against a large body of data. They are given here, however, not only to put the descriptive model in its proper perspective, but also to illustrate how the choice of nuclear tone may interfere with our intuitions as to where the nucleus should naturally come, as it would seem to do in some of the examples used by Berman & Szamosi (1972) to argue against Bresnan's proposal that the NSR could be salvaged by having it apply to deep structure representations (Bresnan 1971). They claim that (17), for instance, represents a 'non-normal' nucleus placement:

(17) The volCANoes are dormant
and that the normal position for the nucleus is on *dormant*. It is suggested that the oddity of (17) is caused by the combination of choices - assumed by the reader on the basis of the representation of the sentence in (17) - from the intonational lexicon as well as from the possible focus distributions. These choices are: the Variable is *the volcanoes are dormant* and the manipulation is V-addition. Since in the reader's Background volcanoes are dormant by way of reference point, these choices lead to a non-interpretable discourse context (unless the reader is to assume that the intended speaker was making a point of stating the obvious).

The sentence can be made acceptable in two ways: either we change the manipulation or the focus distribution. With a fall-rise tone, the utterance could suitably be taken as a reminder, and the oddity of the nucleus location on *volcanoes* would disappear (cf A: *Nothing's RIGHT on this island, there's nothing we can attract TOURists with*. B: (with shrug of shoulders) *The volcanoes are dormant*). Alternatively, we could change the focus distribution, and leave *the volcanoes* in the Background: the hearer can now assume that he ought to be able to identify the referent of *the volcanoes*, presumably a set of volcanoes that was not previously dormant because the predication, the Variable added to the Background, is that they are. This focus distribution of course requires the nucleus to fall on *dormant*, the reading that Berman & Szamosi designate as 'normal'. There is, perhaps trivially, a third way in which we could alter the speaker's choices so as to make the sentence acceptable: if we change *dormant* into *erupting*, the full-focus interpretation combined with the speech act V-addition would no longer clash with the Background. In (18), Berman & Szamosi consider the nucleus placement on *volcanoes* to be 'normal':

(18) The volcanoes are erupting

Thus, we may establish a felicity condition on V-addition, viz. that the added Variable must not already be part of the Background. It will be clear that in a discussion of the mechanics of nucleus assignment, it is important to factor out the effects of the choice from the intonational lexicon as well as of Background on the focus distribution of the sentence.  

The terms used in this section can be summarised as follows:

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Background: body of knowledge about the world operated upon by speakers and hearers which they assume to be mutually shared;

Variable: semantic material to which speakers apply one of a number of manipulations with respect to the Background;

Focus: linguistic category, specifying the size of the Variable;

Intonational lexicon: set of tones signalling ('realising') the particular manipulation chosen;

Nucleus: location of the tone in the sentence, the chief means of signalling ('realising') the focus marking.

4.0 On ‘normal stress’

From the above analysis it will be clear that what people have called ‘normal stress’ may be a more complex phenomenon than is sometimes thought. What happens when a reader is presented with a written sentence and is asked to pronounce it - or simply does so silently for himself - is that, assuming the manipulation V-addition, he first puts a focus/non-focus interpretation on the semantic material represented by that sentence, and then the position of the nucleus follows as a mechanical consequence of that choice. People's natural tendency when dealing with this somewhat unnatural task is to give the producer of that sentence the benefit of the doubt and assign as much of it as is reasonable to the Variable. What is reasonable here not only depends on the semantic material itself, but also on the reader's world. For example, when someone is called upon to read out (19)

(19) He said the princess had laughed!

he may either imagine himself to be a citizen of a country ruled by a king whose daughter was afflicted with the inability to laugh, in which case he will be able to assign [+focus] to the entire embedded clause, or he may assume that in this world princesses are just as likely to laugh as not to laugh, in which case he will not look upon the whole of the embedded sentence as the Variable. The next best interpretation is that reference is made to one of those princesses who had
somehow already been identified, and that the point made is that she had laughed, and not not laughed, which could also have been the case. In the first interpretation we get (20), in the second (21).

(20) He said the princess had laughed!
(21) He said the princess had LAUGHED!

What this means is that the concept of normal stress cannot reasonably be part of a linguistic theory of accent assignment, as it necessarily involves a prior interpretation of semantic material as either Background or Variable. The best one could do is to provide an explanation of why a particular accent assignment is called ‘normal’: the answer is that it is that position that results from the widest reasonable interpretation of the semantic material as the Variable with speech act V-addition.

‘Normal stress’ has been characterised, implicitly by Chomsky (1969) and explicitly by Höhle (1979) and Ladd (1980), as that nucleus placement that results from the interpretation of the entire sentence as [+focus]. Höhle says that the nucleus placement that allows for the largest possible number of focus/non-focus interpretations is normal, while Ladd states that the nucleus placement that results from an interpretation of the sentence as one with ‘unmarked focus’ or ‘focus unspecified’ is normal. (From this discussion it is clear that this is conceptually the same thing as our ‘with nothing marked [-focus]’, cf also Halliday 1967b.) Both definitions of course amount to the same thing, by virtue of the fact that it is natural for larger things to comprise smaller ones rather than the other way around. This can be illustrated by (22), which is a paraphrase of the example given by Höhle:

(22)

What's happened? Papa has given Tommy a GUN
What's Papa done? Papa has given Tommy a GUN
What happened to Tommy? Papa has given Tommy a GUN
What's Papa done to Tommy? Papa has given Tommy a GUN
What's Papa given Tommy? Papa has given Tommy a GUN

All other nucleus placements allow for fewer focus interpretations. (The same point arises from Chomsky’s discussion of the focus interpretations of the noun phrase an ex-convict in a red SHIRT (Chomsky 1969)). Of the two definitions Ladd’s would seem to be the more straightforward. The point that arises from höhle’s discussion is that we are dealing with five different intonational struc-
tures in the right-hand column of (22). Indeed, since every [+focus] Argument will be assigned an accent - as will be argued below - we are in fact dealing with four phonetically different surface structures, only the last two being truly homophonous.

From our discussion so far it will be clear that neither definition of ‘normal stress’ will cover all instances of what has been called ‘normal stress’ in the literature. Many sentences are excluded from having full focus interpretation because their semantic material is too obviously part of the Background. Also, sentences that include a focus governor cannot be given a full [+focus] interpretation either. In the literature, the designation ‘normal’ for the accent in such sentences depends crucially on the fact that there is only one focus/non-focus interpretation possible, viz. the one marked by the lexical focus indicator. We can illustrate this with (23).

(23) John would like to go there himSELF

When in English we wish to focus on the meaning ‘not an NP other than the NP specified’, we produce (my/your etc.)self, -ves as a matter of course, because that is the way our syntax works. And since we specifically produce it when we wish to express that meaning, it can only occur with [+focus] for that NP, and [-focus] for the rest of the material, which is therefore also the obligatory interpretation. ⁸ (The same point is made by Ladd (1980: 76) with respect to the focus adjunct even. Cf also Schmerling (1976: 49).)

The important point is, however, that the notion ‘normal stress’ has no role to play in our theory, simply because we cannot make it do anything to account for the data. The only thing a characterisation of the concept can do for us is to account for people's intuitions about what is the most likely ('normal') place in which they will put the nucleus in isolated 'sentences' that are presented to them. I believe that the formulation I gave earlier in this section does precisely that.

Like Schmerling (1974), we are therefore forced to reject the notion of ‘normal stress’ as a meaningful concept, but for a different reason. Schmerling rejected it because she came upon too many sentences in which different nucleus placements seemed equally 'normal' (cf examples (1) and (2)) and which therefore could not be explained by resorting to a concept of 'normal stress'. Part of the
point in this article is that such different positions can be accounted for, but that it is not 'normal stress' that will do this for us.

5.0 Accent assignment rules

Without wanting to prejudge the question of whether all languages always require that the same (or equivalent) semantic material be marked [+focus] if speakers' communicative intentions are the same, it may be hypothesised that Variable, Background and focus are universal concepts. What is clearly not universal are the ways in which languages realise focus. This could - theoretically - be done with the help of focus-morphemes, to be placed, say, at the beginning and end of the [+focus] material, or by means of word order, by placing the [+focus] material at the end or the beginning of the sentence. An example taken from Edwards (1979) illustrates the effect of word order in Haida, an Amerindian language. In this language, elements are placed 'in sentence-initial position (...) because of the speaker's intention to place before the audience that Information which has the most communicative importance.' Thus, (24) means FRED killed the woman and (25) means The WOMAN killed Fred:

(24)
Fred nang jaades tiigan
Fred the woman killed
(25)
Nang jaades Fred tiigan
The woman Fred killed

Interestingly, the hearer is supposed to be aware of the deceased state of the woman in (24) and of Fred in (25), because the same sentences could also be used to mean The woman killed FRED and Fred killed the WOMAN, respectively. If we wanted to disambiguate the subject-object relation, that is, if we wanted to express the equivalent of the English sentence The woman killed FRED with full focus interpretation, the Haida speaker would have to resort to a 'topicalisation' morpheme after the sentence-initial element, which would then be taken as the object:

(26) Fred uu nang jaades tiigan

(a sentence that by Haida intuitions would be anything but 'normal'!)
Languages like English and Dutch sometimes make use of word order or other syntactic devices to aid their focus marking (e.g. clefting, topicalisation, passivisation\(^9\), but most importantly they employ accent for this purpose. They have, in other words, accent assignment rules that take focus distributions as their input. Again, there is no reason why these accent assignment rules should be the same in the two languages. The first rule to be presented here, called simply the Sentence Accent Assignment Rule, or SAAR, is common to both languages, but the second, the Polarity Focus Rule, or PFR (more properly an extension of SAAR), points up a number of differences. It is this second rule, in particular, that makes it clear that the relation between the location of the nucleus and the semantics of the sentence can be very indirect, and cannot always reasonably be accounted for in terms of the communicative importance of the word the nucleus happens to be found on. SAAR attempts to capture in a more insightful way the observation that Schmerling (1976: 82) made when she formulated her Principle II, which says:

> The verb receives lower stress than the subject and the direct object, if there is one; in other words, predicates receive lower stress than their arguments, irrespective of their linear position in surface structure.

Apart from the unfortunate appeal to degrees of stress in a stress assignment rule, the mistake Schmerling made is that she intended her Principle to apply to what she called ‘news sentences’, i.e. to sentences that consist of [+focus] material only (e.g. (27)). What she failed to realise is that it applied to [+focus] material, full stop. Trivially, this becomes clear when we want to account for the location of the nucleus in B's reply in (28), where *her* is [-focus]:

(27) (Have you heard?) JOHNSon's died
(28) A: And what has SHE come to us for?
   B: Her HUSband beats her

It will be clear that the nuclei in both (27) and (28) should be accounted for by one and the same principle. Non-trivially, the unwarranted distinction between ‘news sentences’ and sentences containing [-focus] material can lead to serious errors of analysis. By restricting Principle II to the class of ‘news sentences’, Schmerling finds herself in the position of having to trump up additional principles to account for other data, such as the other member of her well-known minimal pair *JOHNSon died* - *Truman DIED*. As will be recalled, her examples are authentic. The first was used by her husband to inform her of the sudden
death of President Johnson, while the second was uttered a few weeks earlier: ‘one morning I came downstairs to breakfast, and my mother, who had gotten up earlier and listened to the news, announced to me

(29) Truman died (=Truman DIED)’ (Schmerling 1976: 41)

Schmerling accounts for the nucleus placement in (29) by postulating two principles. After correctly arguing that *Truman* is topic, or [-focus] in our terms, she first introduces a principle that assigns an accent to both the topic (*Truman*) and the comment (*died*), and then postulates a principle that designates the last of a number of accents (‘equal’ stresses for Schmerling) as the nucleus. In other words, she assigns an accent to [-focus] material. It is easy to see that this cannot be right. If we paraphrase (29), admittedly somewhat clumsily, as

(30) The disease KILLED Truman

we get the nucleus on *killed*, despite the fact that the topic comes last. (It should be clear that *the disease* in (30) is [-focus]: the Background for both (29) and (30) is ‘Truman is (dangerously) ill’). By extending the application of Principle II to [+focus] material as such, we not only account for sentences like (28), but also for sentences like (29) and (30): in them, there is only one constituent that is [+focus], and not surprisingly, it is given the nucleus (Gussenhoven 1978).

There is a further problem with Principle II. Phrased the way it is, it puts no condition on the linear adjacency of the Argument and the Predicate. Consider, however, the following two ‘news sentences’:

(31) Our DOG's disappeared
(32) Our dog's mysteriously disapPEARED

It would appear that if the speaker wishes to treat *mysteriously* as [+focus], he must, by that very choice, give *disappeared* an accent. What this suggests is that if an Argument and a Predicate are to merge into a structure that can be marked [+focus] by just the accent on the Argument, no other [+focus] constituents must be inserted between them. It is clearly not the case that the information status of *disappeared* in (31) differs from that in (32): both instances count as equally new. It is rather that because of the interposition of the [+fo-
cus] Condition, the [+focus] status of disappeared can no longer be served by the accent on dog.

These facts suggest that SAAR operates over focus domains. A focus domain can be defined as one or more constituents whose [+focus] status can be signalled by a single accent. We will therefore formulate SAAR in terms of (1) a domain assignment rule, and (2) a rule assigning an accent to every domain formed. In (33), A, P and C stand for Argument, Predicate and Condition, respectively, while X and Y stand for any of these. Underlining symbolises [+focus], absence of underlining [-focus]. Square brackets are used to mark off focus domains, and the asterisk indicates a sentence accent.

(33) SAAR

a. Domain assignment:
   \[ P(X)A \rightarrow [P(X)A] \]
   \[ A(X)P \rightarrow [A(X)P] \]
   \[ Y \rightarrow [Y] \]

b. Accent assignment:
   \[ [\_] \rightarrow [\*]. \] In \textit{AP}/\textit{PA},
   accent A.

Some examples of the operation of SAAR are given in (34). Note that any [-focus] material has been included in the nearest focus domain, but is not, of course, accented. The last assigned accent (the nucleus) corresponds to capitalisation in other examples.

(34)

\[ A^*P \rightarrow [AP] \] Our dog's disappeared
\[ ACP \rightarrow [A^*C][C^*][P^*] \] Our dog's mysteriously disappeared
\[ ACP \rightarrow [A^*CP] \] (Talking about mysteries) Our dog's mysteriously disappeared
\[ APC \rightarrow [A^*P][C^*] \] Jane's had an accident in London
\[ APAA \rightarrow [A^*][PAA] \] (Any news about Jane?) John's promised Jane a bike
APA → [A`. `] [PA`. `]  Jo`hn beats Ma`ry!

APA → [A`. `] PA]  Her hu`sband beats her

APA → AP`. A]  He be`ats her

ACPCC → [AC`. `] [P`. `] [C`. `] [C`. `]  Truman was qui`etly bu`ried in Inde`pendence in 1972`

Observe that the interposition of [-focus] constituents (corresponding to (X) in (33)) do not prevent AP/PA focus domains from being formed, as in (34c,e).
There is an important condition that must be put on the A in SAAR. As a ‘news sentence’, (36) is not well-formed (compare (35)):

(35) The PRISoners have escaped!
(36) *EVERybody has escaped!

Similarly, (37) is ill-formed (as a ‘news sentence’ again, of course: if has escaped is [-focus], as in an echo question, it is entirely well-formed).

(37) *WHO's escaped?

If (36) and (37) are to be all [+focus], they must have an accent on the Predicate, in addition to one on the Argument. AP domain formation would thus appear to be ruled out in cases where the A is either a quantifier or an interrogative pronoun. These Arguments require a focus domain to themselves. Observe how this rule accounts for the fact that (38) en (39) translate into Dutch the way they do:

(38) I've seen JOHN → Ik heb JAN gezien
(39) I've seen NO one → Ik heb niemand gezien

That is, in (38) seen John is one focus domain, but seen no one is (39) are two. Fuchs (1980), who discusses the accentuation of subject + predicate sentences in German, observes that if a nucleus on the predicate is to be possible, the subject must be ‘lexically filled’, i.e. must not be a pronoun. This may well be the correct generalisation, for it would seem that not only quantifiers (indefinite pronouns) and interrogative pronouns are excluded, but also personal pronouns. This may be clear from a comparison of the two replies to A’s question in (40). Speaker B is here assumed to be A’s sister, and Your sister and I refer to the speaker herself:

(40)
A: Why don't we go to Val d'Isere for our holiday?
B: Your SISTER had an accident there (You insensitive thing!)
B: *I had an accident there (nucleus on I)

Of course, in either case, the subject could be treated as [-focus], as the referent is clearly present in the background in her role as speaker:.... ACCident there. The point is rather that it is possible to only accent Your sister, ut not - unless an emotional style is presupposed which need not be assumed in
the former example - to only accent I. With Fuchs, I will therefore assume that the A must be lexically filled. Note that this formulation includes headless A's like *three* in *Three died*.

### 5.1 Topicalisation

It has often been claimed that subject accentuation in subject + predicate sentences should be accounted for in terms of predictability: ‘The point is […] that given the subject and given the situation, the predicate follows as a foregone conclusion’ is the formulation in Quirk et al. (1972: 941, Note b). It is for this reason that many of the examples above have semantically rather ‘weighty’ predicates, like *die* and *have an accident*. It should also be observed that the semantic content of the subject and the predicate may be reversible. This fact in itself makes it difficult to maintain that the position of the nucleus is not -at least partly - structurally determined. In (41) the notion ‘tear’ is apparently equally predictable from ‘trousers’ as ‘trousers’ is from ‘tear’ in (42). Then why are the nuclei where they are?

(41) Your TROUSers are torn
(42) There's a TEAR in your trousers

Nevertheless, postulating a rule for the assignment of sentence accents, even when the input is defined in terms of focus distributions over semantic constituents rather than in terms of syntactic structure, is a hazardous undertaking in the light of the lessons Bolinger gave, notably in Bolinger (1972). For example, it could be argued that in spite of the ‘given’ status of *Doris* in (43), it is given an unmistakable accent, or that despite the fact that in B’s reply in (44) a [+focus] Argument and a [+focus] Predicate are adjacent, the predicate is nevertheless assigned the nucleus.

(43)
A: What about DORis? Couldn't SHE do anything about it?
B: ’Doris had LEFT! (That's the whole point!)
(44)
A: But why didn't you simply drive OFF?
B: My ’tyres had been SLASHED! (How could I?)

Sentence accents, it could be argued, are placed on words that the speaker considers sufficiently important for them to have accents: *Doris* is too important to be left unaccented, and the fact that B's tyres were so brutally slashed in-
duces him to accent the Predicate expressing that act. There is, however, a more insightful explanation. Note, first, that the syntactic rule of topicalisation cannot be applied without first assigning an accent to the element to be topicalised:

(45) ‘Him I HATE

Preposing him requires accenting him. There is, in other words, an intonational topicalisation rule that must apply before syntactic topicalisation can apply. The reverse, however, is not true:

(46) I hate ‘HIM

Also, intonational topicalisation can apply to constituents that syntactic topicalisation cannot apply to, or better, applies to vacuously, because the constituent concerned already is in sentence-initial position. It is suggested that this is what has taken place in (43) and (44): the Arguments Doris and My tyres have been intonationally topicalised. The rule could be formulated as follows:

(47)

That is, it applies to constituents irrespective of their focus marking, and has two effects: the constituent is marked [+focus] and forms a focus domain by itself. The superiority of this formulation is evident when we consider the non-topicalised versions of (43) and (44):

(48) Doris had LEFT!
(49) My TYRES had been slashed!

where had left and all of (49) are [+focus]. Observe that as in the case of (32), the nucleus on the Predicate in (44) is parasytic: in either case, the focus boundary between the Predicate and the Argument prevent the formation of an AP focus domain.
6.0 Interpretative effects of saar

Before an attempt is made to refine the statement made in (33) in terms of general semantic constraints on its application and in terms of more precise definitions of the constituents it refers to, some discussion will be devoted to the semantic effects that may result from the assignment of full focus to subject + predicate sentences (nucleus on subject) as compared to the assignment of [+focus] to the predicate only (nucleus on predicate). The fact that the discussion is restricted to examples in the literature dealing with sentences that consist of a single Argument (the subject) and a Predicate, should not be taken to imply that the rule is not applicable in cases where the Argument has an object-function, as is illustrated by

(50) They’re detaining SUSpects again

The irrelevance of linear position here is aptly demonstrated by translating the sentence into a language in which the same rule is operative, but in which the lexical verb is positioned after the object, such as Dutch.

(51) Ze zijn weer verDACHten aan het vasthouden

Schmerling (1976: 84) and Oakeshott-Taylor (1981) use German to make the same point. In fact, from this point onward, this expository method will be used here as well, the assumption being that SAAR is a rule of Dutch as much as it is a rule of English (cf also (38) en (39)).

1. The first pair of sentences is provided by Kraak (1970), who discusses the position of the nucleus in terms of topic and comment. He observes that

(52) Your EYES are red (= Your eyes are red)
(53) Your eyes are BLUE (= Your eyes are blue)

differ in that redness of the first pair of eyes would be taken to be of a temporary kind, but the blueness of the other pair of permanent type. Because he considers both sentences to be entirely ‘comment’ (i.e. [+focus]), Kraak has to resort to the semantic feature [inherent property] of the colour to account for the difference in nuclear position. Of course, in (53) Your eyes is [-focus], and it is that because it is part of the Background
for people to have, inherently, blue eyes. (Of course, in addition to a number of other colours, like brown, grey, green, etc.) If we want to put a full [+focus] interpretation on this sentence, we would have to resort to a world where this is not the case:

(54)
Adam (upon first seeing Eve): Your EYES are blue!
   Eve: PARdon?
   Adam: Your EYES! They're BLUE! I LOVE blue!

2. A second example is the interesting minimal pair provided by Oakeshott-Taylor (1981):

(55)
A: Can't we eat yet?
B: No, mother's still COOKing (= mother's still cooking)

(56)
A: Can't we eat yet?
B: No, MOTHER's still cooking (= mother's still cooking)

The different interpretations that these sentences will be given are, as Oakeshott-Taylor observes, that in (55) the referent of mother will be assumed to be the agentive subject of the transitive verb cook, while that in (56) would be taken as the passive subject of the intransitive verb cook, i.e. would be assumed to be the intended victim of cannibalism. The analyst's temptation is, again, to try and incorporate this semantic effect in a linguistic theory of accent assignment, either by giving different prosodic statuses to transitive and intransitive verbs, or by hypothesising that passive and agentive subjects must be treated differently. The correct answer, I would suggest, is that the sentences have different focus-distributions (as indicated) and that the hearer's interpretative strategies are triggered accordingly; in (56) he knows, by SAAR, that mother is [-focus], i.e. part of the Background, in which the referent has presumably just finished cooking, but would certainly not be in a cooking-pot. The predicate can suitably be interpreted as 'is still preparing the meal'. In (56), however, the hearer knows that mother must be [+focus], and is forced to construct a Background in which mother cannot be taken for granted as the subject of still cooking. He can only do so by assuming that she is one of a set of objects that could still be cooking, and therefore, if the hearer considers it less likely that the readiness of the meal is contingent upon the completion of the simultaneous cooking activities by a number of people than upon the simul-
taneous readiness of a number of ingredients, he will assume that mother is an ingredient. The different interpretations are therefore an effect of our knowledge of the world. Indeed, in the household of Van Gogh's potato-eaters, we would not only expect (55), but also (58), because in either case there are no other referents in the Background that could be related to the predicates concerned.

(57) (A: Can't we eat yet?) B: No, mother's still COOKing
(58) (A: Can't we eat yet?) B: No, the potatoes are still COOKing

3. A third set of examples can be found in Allerton & Cruttenden (1979), who take Schmerling to task for formulating her Principle II (here SAAR), because for every one of Schmerling's examples of subject intransitive verb sentences that has the nucleus on the subject, they can think of one that has the nucleus on the verb:

(59)  
'(29) JOHN died
(29X) John proTESTed
(32) ...My COUsin's coming
(32X) ...My cousin's CElebrating
(33) Hey ...your COAT's on fire
(33X) Hey ...your coat's been PRESSED
(34) Watch out - there's a CAR coming
(34X) Watch out - there's a car SKIDding
(35) Waiter - there's a FLY in my soup
(35X) Waiter - there's a fly in the vicinity of that gentleman's crepe suZETTE
(36) ...the RENT's due
(36X) ...the rent's exCESSive
(etc)'
(Allerton & Cruttenden 1979)

They observe that all of Schmerling's examples concern verbs that fall semantically in one of three categories: (1) 'empty' verbs (e.g. The SUN's shining; (2) verbs of (dis)appearance (e.g. The DOG's escaped); (3) verbs denoting a misfortune (e.g. The CAR broke down). Schmerling should perhaps be taken to task for some of the things she said in her the-
sis, but certainly not for the formulation of her Principle II. What Allerton & Cruttenden have done is to identify the sort of verb that is likely to figure in sentences that are entirely [+focus]. And indeed, an analysis of the news bulletin along these lines will probably give just these results. The semantic material contained in their examples here given as (59) can all very easily be interpreted as [+focus], because they are so clearly not part of the Background, and can therefore be seen as the added Variable. The readings in the X-examples would seem to depend on the (subconscious) creation of Backgrounds in which the referents of the subjects were already present, and would therefore be excluded from the focus in the sentences concerned. It is not difficult to think of contexts in which the alternative readings are forced, however: A: Why didn't the plan go through THIS time? B: JOHN protested; A: What are you going to BRISTol for? B: My COUSin's celebrating; A: JEEVES, consider yourself SACKED: nothing has been SEEN to. B: Your COAT's been pressed, etc. The ‘error’ here comes from ‘concentrating on the commonplace’ (Bolinger 1972). Allerton & Cruttenden have fallen into the trap of taking the most likely Background for each of these sentences and assuming that the subsequent reading, which is of course ‘normal’ in the light of our knowledge of the world, is also ‘normal’ in a linguistic sense.

By our discussion of these examples we intended to stress the importance of distinguishing between the semantic contribution of the speaker's linguistic choices from the paradigms available to him and the pragmatic implications that these choices may have in any given situation. It would seem difficult to give a generalisation of the circumstances in which speakers will choose one focus distribution in preference to another, however. Perhaps the best generalisation is that the subject in subject+predicate sentences is included in the focus if, given the discourse and the situation, the hearer is not expected to be able to rely in any way on the predicate in identifying the referent of that subject. The hearer's (assumed) ability to identify the referent is of course closely related to the degree of 'newness' of that referent. Yet, it does not appear to be possible to give a perfect predictive formula for the speaker's focus distribution which is based on degrees of 'newness'. Prince (1979) proposes a categorisation of the degrees of 'newness' attached to NP's occurring in discourse. These categories are:

1. **New**
   a. Brand-new
   a newly created entity (A Mrs Delaney)
b. Brand-new, anchored

a newly created entity, linked to some other entity already in the 'discourse model' (our 'Background')

(A neighbour of mine)

c. Unused

an entity known to the hearer, but not yet placed in the ‘discourse model’

(Mrs Delaney)

2. Given

a. Inferable

entity inferable from entities already in the ‘discourse model' (The neighbour (in the context of adjoining premises))

b. Evoked

entity present in the ‘discourse model' either by virtue of any of the above (The poor soul (referring to Mrs Delaney)) or by virtue of being situationally present (me)

When we run these degrees of ‘newness’ through a predicate-frame that has a reasonable degree of newsvale (NP has killed -self), the likelihood of inclusion in the focus would appear to be definable only for the extremes of the scale. Around the centre, focus marking does not seem very predictable from the degree of ‘newness’.

**Brand-new:**
You know what? A Mrs Delaney’s just killed herself. very likely

**Brand-new, anchored:**
You know what? A neighbour of mine’s just killed herself. very likely

**Unused:**
You know what? Mrs Delaney’s just killed herself. very likely

**Inferable:**
I know what the ruckus next door was all about. The neighbour’s just killed herself. very likely

**Evoked:**
You know Mrs Delaney, my neighbour? The poor soul’s just killed herself. impossible

As stressed by Halliday (1967b: 211), what would be considered [+focus] in any situation is ‘in the last resort what the speaker chooses to present as new, and

Carlos Gussenhoven, ‘Focus, Mode and Nucleus’
predictions from the discourse have only a high probability of being fulfilled'.
Ultimately, we cannot base generalisations about focus-choice on the degree of
‘newness’ of the material in question, since such generalisations must somehow
include the speaker’s intentions with regard to the interpretative strategies he knows
will be employed by his hearer. Thus, in the example illustrating the category
‘Inferable’, the choice (again) would not so much seem to depend on how
inferable ‘neighbour’ is from ‘next door’, as on whether the speaker wishes to create the impression that Mrs Delaney is the only neighbour, or perhaps the only neighbour worth thinking of (exclusion from focus), or is one of a set of neighbours who might possibly have killed themselves (inclusion in focus).

7.0 Some refinements

In this section, some refinements to SAAR are introduced. They are of three kinds. First, some discussion is devoted to certain correspondences between the semantic constituents and particular syntactic constituents that seem worth noting. Second, it is demonstrated that focus domain formation can be culturally - more generally, pragmatically - determined. Third, a general semantic constraint is put on the AP (PA) domain formation part of SAAR.

7.1 Some semantic-syntactic correspondences

A, P and C are semantic constituents. Because of their stable one-to-one relationships with syntactic constituents, A and C can be fairly easily identified. A's are subjects and objects, and C's are all adverbials except (1) those that are part of the P (see below), and (2) those that are typically treated as [-focus], such as still, again, generally, if you like. (For a specification of the latter group, see e.g. Firbas 1980).

The specification of the P is more problematic. The first thing to notice is that adverbials with predicate status function as Predicates (cf There's a FLY in my soup). Such adverbial predicates may be premodified, as in There's DIRT on Uncle Jack's trousers, where neither Uncle Jack nor trousers need be [-focus] (unlike Uncle Jack in The TROUSERS of Uncle Jack are dirty or trousers in Uncle Jack's trousers are dirty). The same goes for expressions like have a holiday, have an accident, come a cropper, or even have one's head chopped off, as in Bolinger's (1978) example What happened today? - Marie AntoinETTE just had her head chopped off. It should be noted that in many such cases, there are single-verb paraphrases (to vacation, to fall, (be) guillotine (d)) or single-word equivalents in other languages (Du verongelukken 'have an accident').
The syntactic composition of predicates can be of a less expected sort, though, as the following three cases illustrate.

1. **Adverbs of proper functioning.** This is a class of adverbs that is incorporated with the verb into a single Predicate. As it happens, the verb receives the accent, a fact which should of course be accounted for by rules which specify the position of the accent within Predicates, and within Arguments, for that matter. The adverbs concerned are called adverbs of ‘proper functioning’, because they denote the degree to which the action or state expressed by the verb is properly the case. These adverbs come after the verb in English, but - in embedded sentences and in all sentences with complex verb phrases - before the verb in Dutch, so that in this case it is English that demonstrates the difference between this type of adverb and other adverbs more consistently. Compare (60) and (61):

(60)

A: What are you using my PEN for?
B: Because it WRITES well (Adverb of ‘proper functioning’) Omdat hij goed SCHRIJFT because it well writes

(61)

A: (ditto)
B: Because it wri’tesl bea’tifully
   Omdat hij mo’oil schrij’ft

Similarly, to *SIT* well (with inanimate subject, like *chair*), to *HEAR* properly, to *SEE* poorly, to *CUT* right. Observe that these Predicates readily fuse with Arguments into single focus domains, as in:

(62) This KNIFE doesn’t cut right

Adverbs of proper functioning should be distinguished from evaluative adverbs, which are treated like ordinary Conditions. A physician might say that patient so-and-so *sleeps we’ll*, while a toy mender might say of a doll that it now *sleeps right again*. If we choose to wish a guest good night by using the words *I hope you’ll sleep well*, we will probably not treat *well* as an adverb of proper functioning: the guest might think that the house was haunted or that he was supposed to have a guilty conscience. In the morning things are different. *Did you SLEEP well?* can be a perfectly straightforward, polite question. Indeed, an evaluative *well* would now be slightly odd, as it suggests a degree of personal interest that may be too high for comfort. Adverbs of proper functioning would
appear to constitute a semantic paradigm ranging from *not* to its opposite, and the fact that *not*, too, is unaccented may not be unrelated.

### 2. Adjectival object complements

Adjectival objects complements, like *open* in (63) also call for special comment.

(63) He *left the DOOR open*

Here, an adjectival object complement is placed after an Argument (*door*), and does not get assigned an accent. It is suggested that this is because it is part of the Predicate. Within the Predicate, however, it is the object complement rather than the verb that is accented, as in (64), where the *door* is [-focus]:

(64)

A: (slams door)
B: I wish you'd *left the door OPEN*

Ik wou dat je deur *had OPEN gelaten*

I wish that you the door had open left

Structures like *to paint GREEN*, *to make HAPPy* (*cf* *It'll make your FATHER happy*), *to scrape BARE* (*Hey! The front DOOR's been scraped bare!* etc., are therefore prosodically on a par with phrasal verbs like *to bring IN* (*cf* *to bring the PRAM in*), *to leave BEHIND*.  

### 3. Destination adjuncts

Special provision must also be made for destination adjuncts. Observe, first, that a combination of a verb of motion and a destination adjunct forms a single focus domain: in (65) the [+focus] status of *cycled to town* can be signalled by the single accent on *town*. In (66), by contrast, the duration adjunct for *hours* does not so fuse with the verb, and both constituents require a focus domain to themselves (*PC → [P*] [C*] ): Interestingly, there is a concomitant syntactic difference in Dutch. The perfective auxiliary is *zijn* (*be*) if the adverbial denotes destination, but *hebben* (*have*) if it does not (e.g. Lodewyckx 1944: 63).

(65)

He has cycled to *TOWN*

Hij is naar de STAD gefietst

he has to the town cycled

(66)

He has cycled for *HOURS*

Hij heeft uren gefIETST

he has hours cycled
It does not, however, appear to be the case that constituents like *cycle to town* readily function as Predicates that can fuse with Arguments into single focus domains. Thus,

(67) The KING has fled to Spain!

may not seem an acceptable ‘news sentence’, unless it is the case that Spain is the only eligible country for kings, or this particular king, to flee to, and *to Spain* is [-focus]. The solution here would appear to be that this C, like A’s, merges with Predicates into a single focus domain, and that once such merging has taken place we cannot then regard the result as a P that can merge with yet another constituent. That is, if we symbolise a merging C as Cm, then APCm is treated like APA, i.e. [Â ] [PC’m]. In the next section some other cases of Cm will be discussed.

7.2 Cultural considerations

Bolinger (1972) observes that (68) (one of many similar examples he gives) demonstrates that speakers - in this case the speaker is assumed to be the Boston strangler on the prowl - will put the nucleus on whichever word needs highlighting, and that such preferences simply cannot be accounted for in a grammar. While it is agreed that the determination of the choice between (68) and (69) is beyond the power of linguistic theories in a strict sense, the nature of the options must nevertheless be defined in terms of linguistic concepts available in some such theory.

(68) Where can I find a girl to STRANGle?
(69) Where can I find a GIRL to strangle?

For example, it is in the framework presented here not meaningful to say that a speaker may put the nucleus either on *girl* or on *strangle*, depending on which concept is uppermost in his mind. Instead, the option must be said to be between merging *a girl* and *to strangle* into a single focus domain (nucleus on *girl*), or to keep them in separate focus domains (nucleus on *strangle*). Of course, within certain limits, speakers are free to break their information up over separate information carrying units, if they feel that this contributes to the success of their communication. If the speaker of (68) is the Boston strangler, it must have been spoken fairly early on in his deplorable career. The
speaker of (69), however, no longer saw the need to encode the Argument and the Predicate as two different information units, presumably because he had combined them sufficiently frequently in this particular relationship in life - which fact he took his hearer to be aware of. Observe that this analysis makes explicit that there is another sentence that has the nucleus on *strangle* that is phonetically different from (68): a sentence having only *to strangle* in focus ('I know where I can find girls to SHOOT, but...'): the nucleus locations are the same, but the sentences differ with respect to the pre-nuclear accent on *girl*.

We must, in other words, recognise that domain formation can be culturally (pragmatically) determined. The merging of Predicates and Conditions, in particular, would appear to be sensitive to considerations of cultural normalcy. Consider (70) and (71), and compare them with their Dutch translations:

(70)
(A: Is your husband in? B:) He's gone fishing with his SON
Hij is met zijn zoontje Vissen
(71)
(A: Is your husband in? B:) He's out playing with his SON
Hij is met zijn ZOONtje aan 't spelen

As will be clear, *gone fishing* and *with his son* quite naturally constitute separate focus domains, but, equally naturally, *be out playing* and *with his son* are merged. (A nucleus location on *spelen* in the Dutch sentence in (71) would be odd, and might imply that the husband was behaving childishly.) 13 Here, we should also mention the combinations *live/work in X*, which are normally merged foci, although generally only destination adjuncts merge like this. Compare (72) and (73):

(72)
A: How did you come to speak such excellent German?
B: I lived in AUSTria for a while
Ik heb een tijdje in OOSTenrijk gewoond
I have a while in Austria lived
(73)
A: (ditto)
B: I taught in AUSTria for a while
Ik heb een tijdje in Oostenrijk LESgegeven

Clearly, although there are strong syntactic correlates, focus is essentially a semantic concept.
7.3 Eventive and non-eventive sentences

In his discussion of information focus, Halliday (1970:38) at one point refers to the man in the London underground who uttered (74) for what was intended as (75), and ‘was worried because he had no dog’:

(74) DOGS must be carried
(75) Dogs must be CARRied

Halliday observes that the speaker of (74) ‘treated dogs as ‘new’, the implication being that in (75) Dogs is ‘given’. While the semantic difference between the members of this minimal pair is interestingly clear-cut, it is difficult to accept Halliday’s analysis. It is, to begin with, not clear how Dogs can be ‘given’, i.e. [-focus]; it is not the case that there are necessarily dogs in the context, nor, indeed, could the transport corporation which first introduced the rule, have used (74) to proclaim it. Secondly, (75) is a member of another minimal pair: one between it and a lexically identical sentence in which dogs is unaccented (low-pitched). Perhaps pair (76)-(77) provides a better illustration here:

(76)

Peo∗ple will be sho∗t

(77)

People will be sho∗t

Note that (77) can be used to try and convince someone who has just acquired a new gun that it would be unwise to try it out in a busy street. People here refers to entities clearly available in the background (a busy street), and can be [-focus]. But (77) cannot be used if the intended meaning is: ‘Should there be people, they will be shot’, which would require (76). Clearly, (75) and (77) are sentences in which both the Argument and the Predicate have an accent. It is suggested, that is, that they are both entirely [+focus] (as are (74) and (76)), and that the domain formation part of SAAR has failed to apply. The constraint that must be put on the application of the rule is that the proposition expressed in the sentence should directly refer to an event. Observe that the A's in (75) and (77) do not necessarily exist: they have a conditional status, as the paraphrase of (76) above suggests (‘If there is an A of this sort, the…’). Eventive sentences, by contrast, express propositions that say that something was (is, will be, might have been, was not, etc) an event, without the conditional hedging present in (75) and (76).
‘Eventive’ is thus a semantic feature that marks entire sentences. Interestingly - and reassuringly - it is not only intonational aspects of surface forms that are sensitive to it. In Dutch, there is a rule of er (‘there’) -inversion that applies to indefinite subjects of intransitive verbs (e.g. Paardekooper 1963: 34). However, er-inversion is blocked, if the sentence is non-eventive. The only interpretation of the Dutch sentence in (79) is the one given; the translation of the more expected (78) cannot have er-inversion.

(78)

Thieves will be prosecuted
Dieven zullen worden vervolgd

(79)

THIEVES will be prosecuted (Come and see it: tickets £25!)
Er zullen DIEVEN worden vervolgd

The distinction between ‘conditional’ and ‘non-conditional’ Arguments need not be confined to subjects, incidentally. Compare (80), a non-eventive regulation, with (81), a possible caption under a picture showing squatters being evicted from their squat:

(80) The Sheriff's Officer turns squatters OUT
(81) The Sheriff's Officer turns SQUATTERS out

The examples given so far might suggest that the different nucleus locations should be given an alternative explanation: all non-eventive sentences appear to have ‘generic’ Arguments, and vice versa. There are two reasons why the feature [eventive] cannot be replaced with the existing feature [generic]. One is simply that both ‘eventive’ and ‘non-eventive’ sentences can have generic as well as non-generic Arguments. First, observe that there is no reason why the non-generic Lord Coolan cannot be given the same ‘conditional’ interpretation as the generic thieves of (78): (‘Should Lord Coolan enter these premises…’):

(82)

Lord Coolan will be prosecuted

Conversely, a scientist who was lucky enough to have had the last dodo under his care, could, upon the demise of that dodo, have announced this event by using either (83) or (84), where (84) is an eventive sentence with a generic Argument.

(83) The DODO is dead
(84) The DODO is extinct
It is suggested that the undoubted correlation between non-generic Arguments and eventive sentences has a pragmatic explanation: the occasions on which we can report on events affecting whole classes of entities are few and far between.

The second reason why an appeal to genericity does not work is that sentences with conditional Arguments constitute only one type of non-eventive sentence. There is another type, which, because it is non-eventive, similarly fails to tolerate AP domain formation: the class of ‘definitional’ sentences. (The former type could be referred to as ‘contingency sentences’.) Compare (85) and (86):

(85) Milk is ANimal
(86) The MILK's in the sun

(85) defines an entity in the Background, Sentence (86), by contrast, can be used to actually update the Background in a historical sense: ‘Please look upon the fact that the milk is in the sun as an eventive (historical) development of our Background’, the implication presumably being ‘Please do something about it’. Again, both sentences are entirely [+focus] (‘news sentences’, if this term is preferred); only, (86) is marked [+eventive] and (85) is not.

This, surely, is the real explanation for the fact that a sentence like My sister-in-law is a Swede is odd with just an accent on the subject, and not, as Schmerling (1976: 95) and Fuchs (1980) claim, that predicates within definite nouns denoting permanent properties should be treated differently from other predicates. It is simply that such nouns typically figure in definitional sentences. Significantly, eventive readings of such sentences can, at a pinch, be forced. By the side of (87) we can imagine the eventive (88), without having to resort to a context in which spy can be [-focus]:

(87) Mata-Hari was a SPY
(88) (Have you heard?) The First SECretary is a spy!
(89) Beverley is a MAN
(90) (Have you heard about the dope tests?) Pavla CherKOVa is a man!

It would appear that if there is a semantic condition that must be put on the well-formedness of AP/PA domain formation, it is that the sentence should be eventive, and not that the predicate should not be a noun, or, for that matter, that it should express one of the three meanings identified by Allerton & Cruttenden (1979) (although with two of them - misfortune and (dis)appearance -
they were probably groping for the more general characterisation). Moreover, the feature [eventive] has been shown to be relevant outside the context of nucleus placement for the Dutch rule of er-inversion.

8.0 Mode

The application of SAAR presupposes that there is at least one major [+focus] semantic constituent in the sentence (A, P or C): the rule does not, as it stands, provide for sentences in which less than those constituents is in focus, such as sentences in which only the polarity is [+focus]. Before we can discuss the position of the nucleus in sentences with polarity focus, however, a distinction must be introduced which is of direct relevance to the issue of nucleus location. Consider the following examples:

(91) The house ISn't on fire
(92) (Stop squirting WATer all over the house. I TOLD you)
      The house isn't ON fire

It is important to note that both in (91) and in (92) the semantic material that is treated as [-focus] is the house IS on fire, and the semantic material treated as [+focus] is the negative polarity. In both sentences the speaker intends to 'refer to' the house be on fire (which the addressee apparently takes to be the case) as Background, i.e. [-focus], and add to it (equally emphatically, as far as we can tell) the Variable that this material is not in fact part of the Background. The semantic difference between them is that in (91) the speaker tries to prevent the addressee from adding an incorrect Variable to the Background, while in (92) the speaker is concerned to 'debug' his addressee's Background. Taking their lead from Watters (1979), Dik et al (1980) use the term 'counterassertive' and 'counterpresuppositional' in a discussion of focus types for sentences like (91) and (92) respectively. The 'counterassertive' sentence (or the V-rejection, to use our own earlier term, Gussenhoven 1981) would appear to be formally distinct from the corresponding non-counterassertive sentence in quite a number of languages. Thus, Dutch maintains the distinction between polarity-focus sentences with and without V-rejection, by placing the nucleus in the former type on wel (affirmative particle) or niet ('not'), but on the main verb in
the latter: taking the house be on fire to be [-focus], the counterassertive sentence is (93), and the corresponding non-counterassertive one is (94):

(93) Het huis staat WEL in brand
    The house stands affirmative particle in fire
(94) Het huis STAAT in brand

The corresponding negatives are, respectively:

(95) Het huis staat NIET in brand (= (91))
(96) Het huis STAAT niet in brand (= (92))

The situation in English is more complex than in Dutch and, moreover, would seem to allow for more than one nucleus location for certain focus/mode markings, but this should not be allowed to confuse the issue: the point is that the distinction is relevant to the problem of nucleus location. It should also be noted that there may be other than intonational means available in other languages to mark counterassertion, as indeed there are other means to mark focus distribution per se. Neither is the formal distinction necessarily restricted to sentences with polarity focus. Efik exemplifies both points rather nicely. In this language (the data are T.L. Cook's and are reported in De Jong (1980)), V-rejection sentences are distinct from other sentences, irrespective of focus distribution, through reduplication of the verb stem. Thus, both (97) and (98) have Etim in focus and have [-focus] for the rest of the sentence, and both therefore translate as ETIM built that house. However, (97) is a rejection of the hearer's statement that someone else built that house, while (98) could be the answer to the question Who built that house?. (The focus on Etim itself is marked by the combination of the verbal prefix ɔkɔ and high tone for the verb bob.)

(97) é-tim ɔ-kɔ-bo-bɔb ú-fɔk ɔ-kɔ
    Etim past+prefix+V-rejection+build house that
(98) é-tim ɔ-kɔ-bo-bɔb ú-fɔk ɔ-kɔ
    Etim past+prefix+build house that

In order to emphasize the fact that counterassertion may occur independently of both focus distribution and the choice from the intonational lexicon (section 3), we will introduce the variable mode, which has two values, [+counterassertive] and [-counterassertive]. Below, mode is only specified when its value is
[+counterassertive]; when nothing is specified the unmarked value is always assumed. It is suggested that counterassertion is the only relevant factor involved in discussions about ‘contrastive stress’ in English as well as in Dutch, and that all other claims about ‘contrastive stress’ can be reduced to instances of narrow focus (mode [-counterassertive]) or to the application of intonational topicalisation. (For a discussion of the vacuity of the traditional notion of contrastive stress, see Bolinger (1961), and for an attempt at constraining the notion, Taglicht (1982)).

Outside the class of polarity-focus sentences, mode is relevant in English and Dutch in so far as the focus domain in [+counterassertive] sentences is in some cases split up and confined to separate elements, if these are felt to be individually different from the elements they are substituted for. Compare (99) with (100):

(99)

A: What's that about MARy you said?
B: Oh, JOHN's fallen in love with her ([{-counterass}])

(100)

A: INTEResting. So Bill's gone off MARy, has he?
B: NO. I said John's fallen in LOVE with her ([{+counterass}])

Possibly, too, mode can be invoked to account for the oddity of the focus distribution in affirmative answers to yes/no questions. Observe, first, that answers to WH-questions have the focus on the requested bit of information, which is what one would expect (e.g. Dik 1980: 213):

(101)

A: Who was born in Paris in 194SIX?
B: JOHN (was born in Paris in 1946)

Analogously, one would expect answers to yes/no questions to have polarity focus. This is true for short-form replies (Yes it IS, No it ISn't) and for negative answers (Was he the GARDener? No, he WASn't the gardener). But the more neutral focus distribution in lexically fully specified versions of affirmative answers have the same focus distribution as the question:

(102)

A: Is he the GARDener?
B: YES, he's the GARDener
Odder still, a focus boundary tends to be inserted between Arguments and Predicates. In (103), the focus includes the volcanoes are dormant, and the nucleus therefore goes to the Argument in the question. In the answer, a focus boundary is inserted between the volcanoes and are dormant, and the nucleus therefore goes to dormant, leaving volcanoes with a prenuclear accent, which situation would seem to parallel that of (100).

(103)
A: Are the volcanoes dormant?
B: Yes, the volcanoes are DORMant

Are we pushing the analysis too far if we say that the full focus in B’s answer is [+counterassertive]? What this would mean is that the questioner, in asking the question, presents the focused material in it as a tentative addition to the Background, to be corrected by the hearer as appropriate. If the answer is yes, the hearer behaves as if he is to correct an empty slot, the absence of a proposition as it were, and marks his sentence with full focus and switches to mode [+counterassertive]. If the answer is no, he behaves as if the proposition in the question had in fact been added to the Background, and replies with a polarity-focus sentence, again, of course, with mode [+counterassertive], as is illustrated in (104).

(104)
A: Is the HOUSE on fire?
B: No, the house ISn't on fire
*N: No, the house isn't ON fire

If mode is indeed the feature involved here, then the term ‘counterassertion’ would clearly be too restrictive in meaning, and the more neutral ‘V-rejection’ should be preferred. Whether or not this analysis is correct, the relevance of mode to nucleus location in polarity-focus sentences has been clearly demonstrated.

In sections 5, 7 and 8, the following concepts have been added to the model:

**Focus domain:**  structure which can be marked [+focus] by means of a single operation of SAAR;

**Eventive:** feature specifying whether a sentence is presented as a historical development or otherwise;

**Mode:** variable specifying whether the sentence is counterassertive or otherwise.
9.0 Minimal focus and the polarity focus rule (PFR)

By minimal focus we mean any focus distribution that has less than the elements specified in the structural description of SAAR in its focus. An important sub-class of minimal focus is polarity focus, discussed above. However, minimal focus may also arise when part of an argument or predicate is [+focus]. It is minimal-focus sentences in general that make it clear that Bolinger’s ‘highlighting’ hypothesis is untenable. In such sentences, there is often so little in the way of words that is marked [+focus], that the resultant nucleus locations are scattered all over the place: the nucleus is desperately looking for semantically empty little words it can go to, and - not surprisingly - it is here that even closely related languages like Dutch and English part company. The examples (105) - (111) below are provided with Dutch translations for comparison: the focus distribution is either marked by underscoring or given separately.

(105)
A: J.R., I'm SOber. I don't DRINK. I wanna go HOME
B: The only reason you're so CALM is that you don't get anything TO drink
is dat je niks te drinken KRIJGT
is that you nothing to drink get
(106)
Now if we want to find a solution TO this problem
Maar als we een OPlissing voor dit probleem willen vinden
but if we a solution to this problem want-to find
(107)
A(soccer fan): I want you to sprinkle my ashes all over the PITCH
B: Well, you know spectators aren't really allowed ONto the pitch
Je weet dat toeschouwers eigenlijk niet op het veld worden TOEgelaten
You know that spectators really not on the pitch are allowed
(108)
And a careful watch is being kept on the river TWEED in case it bursts ITS banks
voor het geval dat DIE buiten zijn oevers treedt
in case that that-one outside its banks bursts
(109)
They used either the y or the THORN. But here they started using the tH, instead of either y OR thorn (focus on coordination)
in plaats van ofwel de y-GREQUE, ofwel de THORN
in place of either the y or the thorn
(110)
She never GREETS you, and she doesn't look very HAPpy when she DOES say hello
What this set of examples should make clear is that it is necessary to take the notion of the location of the nucleus as the realisation of focus distribution seriously. Clearly, the placements are rule-governed: there could be no explanation for the fact that they are on different elements in Dutch if they were not. It is stressed that if in the Dutch translations the nucleus is placed on the word corresponding to the word that has the nucleus in English, the result is frequently a well-formed sentence, but always one with a different specification for focus and/or mode. Thus, if the Dutch version of (107) is pronounced with the nucleus on op, a sentence results that actually has op in focus. As such, it could figure in a text in which the speaker’s next utterance might be When hovering OVer it, they must keep well clear of grass blade TOPS. The English sentence is simply ambiguous between these two focus readings. Similarly, Patty Grey is nooit IN mijn auto geweest is well-formed only if the speaker intends to imply that she HAS been underneath it, or on top of it: his starting point is explicitly ‘PG had some spatial relationship to my car’ (nooit is focus governing), and his added Variable is ‘But it was not an inside-relationship’. If the English speaker of (111), by contrast, were later te be confronted with forensic reports about PG’s fingerprints on the roof of his car, he cannot then say that ‘I never said she might not have been on top of it’ without deliberate duplicity. The English sentence is, again, ambiguous, this time between a reading with polarity focus and a reading with focus for in. The formulation of the extension to SAAR (this time for English and Dutch separately) will have to distinguish between cases in which nucleus placement seems variable, as it does when in a longer Predicate at least a verb is under focus (e.g. (105), (107)), or in a longer Argument at least a noun (e.g. (106)), and cases in which such placement is obligatory, as it often is when polarity is under focus, or some grammatical binding element, as in (109), (110), and (111). Ideally, the extension would specify the factors that favour the location of the nucleus on element x rather than y in the case of variable nucleus placement. The formulation of this extension is felt to be outside the scope of this article, however, and we will here confine ourselves to a statement of nucleus placements in polarity focus sentences. Table 1 attempts to capture the facts for both English and Dutch.
Table 1. Nucleus locations in English and Dutch polarity-focus (PF) sentences

<table>
<thead>
<tr>
<th>Mode</th>
<th>PF</th>
<th>English</th>
<th>Dutch</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ca</td>
<td>+</td>
<td>Nucleus goes to the last verb phrase element but one, or to the rightmost preposition or to-particle, if present</td>
<td>Nucleus goes to the operator in non-embedded sentences, but to the COMP-node in embedded sentences</td>
</tr>
<tr>
<td>-ca</td>
<td>-</td>
<td>as above, but the second disjunct is optional</td>
<td>Nucleus goes to the operator in non-embedded sentences, but to the COMP-node in embedded sentences</td>
</tr>
<tr>
<td>+ca</td>
<td>+</td>
<td>Nucleus goes to operator (un-less <em>not</em> doesn't contract, and it gets the nucleus)</td>
<td>Nucleus goes to <em>wel</em> (affirmative particle)</td>
</tr>
<tr>
<td>+ca</td>
<td>-</td>
<td>Nucleus goes to operator (un-less <em>not</em> doesn't contract, and it gets the nucleus)</td>
<td>Nucleus goes to <em>niet</em></td>
</tr>
</tbody>
</table>

The nucleus locations in (105) to (110) will here be left unaccounted for, as these would not seem to require essential additions to the model, and are therefore better treated in a more explicitly comparative framework.

It will be clear that the words that are singled out to carry the nucleus in non-counterassertive sentences in English are conspicuous for their semantic emptiness. I will label them ‘nucleus carriers’ or NCs. Still confining our attention to English non-counterassertive sentences, NCs are (i) the penultimate verb-phrase element (modal auxiliary, grammatical auxiliary, lexical item), unless there is only one item, in which case that is the NC; (ii) prepositions; and (iii) the verbal *to*-particle. Note that when there is only a lexical item in the verb phrase, there is a strong pressure to insert *do* as an NC (‘emphatic *do*’). Negative non-counterassertive sentences show a clear preference for the rightmost NC, while in positive non-counterassertive sentences there appears to be a choice between a verbal NC and a later one, if there is one. In counterassertive sentences the nucleus always goes to the operator, unless *not* remains uncontracted and the nucleus goes to *not*. We could formulate these facts as follows:

(112)
*English:*

PFR

a. N’C(X)  [-counterassertive]

b. operator  [+counterassertive]

Condition: if S is negative, X does not contain an NC
In Dutch, the situation is marginally simpler: in non-counterassertive sentences the nucleus goes to the operator, unless the sentence is embedded, in which case it goes to the Chomskyan COMP-node, if appropriately filled: conjunctions, relative pronouns, comparative clause-introducers and the non-finite clause introducer *om (te)* all qualify. In counterassertive sentences it goes to the polarity morphemes *wel* and *niet*. Thus, we may say:

(113)  
_Dutch:_

PFR

a. CO±MP, if S

operator

[-counterassertive]

b. polarity± morpheme

[+counterassertive]

where S stands for 'embedded sentence'.

The following examples illustrate the above rules (cf also (7), (91) to (96), (110) and (111)). First, [-counterassertive] sentences:

(114)
A: Why didn't you take the GARBage out?  
B: I TOOK the garbage out  
_Ik HEB de vuilnis buiten gezet_
I have the garbage outside put

(115)
A: I wish you LOVED me  
B: But I DO love you  
_Maar ik HOU van je_
But I love you

(116)
A: Now that everything has been CLEANED, we can start putting things away  
B: ExCUSE me, not everything has BEEN cleaned  
_ParDON, niet alles IS schoongemaakt_
not everything has been cleaned

(117)
A: SIMple! We'll transplant a new KIDney!  
B: In THIS hospital, no organs will BE transplanted!  
_ZULlen geen organen worden getransplanteerd_
will no organs be transplanted

(118)
A: I wish we were in FRANCE  
B: We ARE in France/ We're IN France!
We ZIJN in Frankrijk
   We are in France
(119)
A: Why haven't you started READing yet?
B: There are no books TO read
Er ZIJN geen boeken om te lezen
There are no books (for) to read
(120)
A: Why aren't you looking at your PICTures?
B: I have no pictures to look AT
Ik HEB geen plaatjes om naar te kijken
I have no pictures for to(prep.) to(particle) listen

The following examples illustrate polarity focus in (non-counterassertive) embedded clauses, which in Dutch require the nucleus on the COMP-node:

(121)
We can't bend backwards any further than we HAVE done
We kunnen u niet verder tegemoet komen DAN we dat al hebben gedaan
than we that already have done
(122)
I didn't know we were IN Quebec
Ik wist niet DAT we in Quebec waren
I knew not that we in Quebec were
(123)
I know most of the people that I DID see
Ik ken de meeste mensen DIE ik heb gezien
I know the most people who I have seen
(124)
Our task is to SOLVE these problems and if you've got the means TO solve them…
en als je de middelen hebt OM ze op te lossen
and if you the means have for them (prefix) to solve

(Note how in (124) the nuclei are on equivalent words, but that this similarity is superficial: Dutch om is a COMP-filler, English to is an NC.) Nucleus locations in polarity-focus sentences that are counterassertive are considerably less complex. One example will suffice:

(125)
A: DARling, we could never have MADE it!
B: Oh, but we COULD have!
Ach, we hadden het WEL kunnen halen
Oh, we had it affirmative particle can make
Ambiguities, so it would seem on some reflection, are the rule rather than the exception. Two cases are perhaps worth singling out. In Dutch, a nucleus on a finite verb form may signal focus for the verb (by SAAR) or non-counterassertive polarity focus (by PFR). In English, a nucleus on an operator may signal either non-counterassertive or counterassertive polarity focus (both by PFR). In (126) - (128) these ambiguities are compared across the two languages. Note that Dutch niet rewrites as geen if the sentence contains an indefinite object.

(126)
A: Have you seen Brideshead ReVISited?
B: I don't WATCH television
Ik KIJK geen televisie ('not' focus on verb)

(127)
A: Monk RUFus, it says in this report that you watch TElevision
B: But I DON'T watch television, father (*WATCH)
Maar ik KIJK geen televisie (*GEEN) (polarity, [-counterass])

(128)
A: Monk RUFus, you watch TElevision!
B: NO, I DON'T watch television!
NEE, ik kijk GEEN televisie! (polarity, [+counterass])

A final remark on the role of not in focus assignment is made here. Observe that not only occurs in the Variable in negative polarity-focus sentences (and may have the nucleus only when the mode is [+counterassertive] and does not contract). Elsewhere, not is focus-governing, like even, also etc, but it may also occur in the [-focus] material (cf Jackendoff 1972). The three possibilities are illustrated in (129), (130) and (131) below:

(129) (The SHED may be on fire, but) the \textquotesingle HOUSE isn't on fire

(130) (A: The HOUSE is on fire B: NO,) the house \textquotesingle Isn't on fire
(131) (A: LUCKily, the HOUSE wasn't on fire. B: More reassuring STILL,) the house ISn't on fire (Put that BLOW torch out!)

The obvious advantage of taking not as focus-governing is that there is no semantic reason for postulating a feature 'scope' for not, the scope of not being identical with the focus of the sentence. It may perhaps be noted that not is sometimes invoked to account for differences of interpretation that it really cannot be held responsible for. An example is the difference between epistemic and deontic interpretations of English modal auxiliaries. As Lyons (1981: 133) says, He may not come can mean either 'It is possible that he will not come' or 'He is not permitted to come', with not associating differentially with the (paraphrase of) the modal. In our interpretation of not, both sentences have the same representation, however:

(132)

Note that although logically the status of not may seem different in the two interpretations, there is no reason for postulating different linguistic structures for them, any more than for the difference between the two interpretations of he may come, except of course in so far as there are two auxiliaries may, one indicating permission and the other indicating possibility. There is, in other words, a crucial distinction between, on the one hand, differences of the type exemplified by ALL the men didn't go (either all [+focus] and not [-focus]: 'None of the men went'; or all [+focus] and not focus-governing: 'Not all the men went'), or by John didn't kill his brother (for instance, either John [+focus] or brother [+focus], and not focus-governing in either case), and on the other hand, the difference between the two interpretations of he may not come: in the former case we are dealing with paradigmatic choices available in the linguistic system affecting the status of not, in the latter case we are not.
10.0 Summary

1. On the level of the sentence, the nucleus, more generally accent, is seen as the major realisation of the universal concepts of focus and mode in languages like Dutch and English.

2. While it is possible to define the concept of ‘normal stress’ in terms of the model, the concept has no role to play in the mechanics of accent assignment.

3. Focus is not co-extensive with the tone group: while the material in a single focus domain need not be contiguous (provided no alien [+focus] constituents are interposed), there may be more than one [+focus] focus domain in the same tone group, in which case the Sentence Accent Assignment Rule applies to each one of them.

4. For an Argument and a Predicate to be able to form a single focus domain, the Argument must be lexically filled and the sentence must be eventive.

5. Mode is relevant to accent assignment independently of focus distribution. A concept of ‘contrastive stress’ has no role to play in the model.

6. The Polarity Focus Rule demonstrates that two closely related languages may differ in the way they realise focus and mode.
References


**Eindnoten:**

1 An earlier version of sections 1 to 4 was presented at the Tenth PILEI Symposium (Cornell University, 1 August 1981) and the Edinburgh Linguistics Circle (4 November 1981), while the distinction between mode and focus (then called 'range') was the subject of a paper presented at the Second Conference on the Teaching of Spoken English (Leeds University, 7 August 1979). I should like to thank Ton Broeders, Gill Brown, Jim Hurford, Bob Ladd, Toni Rietveld, Felix Vieregge and an anonymous reviewer for *Journal of Linguistics* for their comments on earlier drafts. To Bob Ladd I am more generally indebted for encouraging me to pursue the approach taken here.

2 The term 'sentence' is used in its ordinary sense of 'well-formed surface structure' (or fragment of it), which of course includes the sentence accent(s). The term 'ambiguity' then naturally refers to the existence of more than one possible specification for the features to which the presence of sentence accents is sensitive, like [focus].

3 The same point is made by Ladd (1980: 98) when he says that the operation of a deaccenting rule he postulates 'should not be confused with the reasons for which the speaker chooses to operate the rule in the first place'.

4 I am freely paraphrasing an example which was brought to my attention by Ton Broeders. It occurred in the British television serial *Dad's Army*, when a member of the Home Guard, who for some undisclosed military reason had been ordered to speak French, justified his obvious non-compliance with the order by saying *But we're not IN France*.

5 *Please* belongs to a group of expressions that can be appended to sentences without attracting the nucleus. Among them are vocatives (Crystal 1975: 25, Bing 1979: 25) and general time indicators like *for a while, tomorrow* (Brown 1977: 89). Bing calls them 'Class O expressions'.

6 For 'manipulation' some such term as 'intonational speech act' might seem appropriate. The term is unfortunate, as it would suggest a similarity to 'speech acts' (Searle 1969), which essentially refer to speakers' intentions (or hearers' conclusions), whereas 'manipulations' constitute a linguistic paradigm, like tense or mood.

7 For expository reasons, I exclude from consideration non-interpretative readings, referred to by Brazil, Coulthard & Johns (1980) as 'reading what it says'. People in fact frequently read out isolated sentences almost on a word-by-word basis, without constructing any Background at all.

8 The focus governor should be distinguished from the viewpoint adjunct (Quirk et al 1972: 429) meaning 'as far as NP is concerned'. It is syntactically distinct from the focus governor in that it can only be used to refer to subjects. Thus, *I wouldn't like to go there mySELF is ambiguous between mySELF meaning 'personally' (as in *London is a fine place, but…*) and mySELF meaning 'no one other than me' (as in *Not only wouldn't my wife like to go there, but…*). Secondly, it may need pointing out that the focuser should be kept distinct from the reflexive pronoun, which has the same phonemic make-up and is part of the predicate, occurring in e.g. *John KICKED himself*. An interesting structure results when we produce a [+focus] reflexive and insert the focus governor, in which case the reflexive is deleted in English, as in *John kicked himSELF (= John kicked himself himSELF)*. Note that this sentence is ambiguous in three ways: the focus governor may have *John* in focus (*Was it Bill who John kicked? No…*), it may have the reflexive in focus (*Was it Bill who kicked John? No…*), or it may have *John* in focus without there being a reflexive pronoun (*Did Bill kick? No…*). For the distinction between the reflexive and the focus governor, see van der Leek (1980).

Carlos Gussenhoven, ‘Focus, Mode and Nucleus’
9 Clark & Clark (1977) cite evidence that passive sentences with the nucleus on the by-agent are less likely to be given full focus interpretations than active sentences with the nucleus on the object.

10 Note that [AP] and [AP] give the same surface form. Aghem, a Grassfields Bantu language, distinguishes these structures by placing the argument in final position if the predicate is [+focus]. By contrast, this language makes no formal distinction between [AP] and [AP] in the case of subject + intransitive verb sentences (Watters 1979: 145).

11 As far as the assignment of sentence accents is concerned, there is thus no reason to postulate any form of metrical structure as proposed by Liberman & Prince (1977), a linguistic device enlisted by Ladd (1980: 87, 1981a) to account for the nucleus location in B's reply in A: Has John read Slaughterhouse Five? B: John doesn't READ books. Ladd assumes that here the focus is 'broad', and that there is a deaccenting rule that switches the 'strong' and 'weak' round associated with books and read respectively. Quite apart from the fact that the postulation of full focus plus a deaccenting rule plus a metrical tree amounts to an unnecessary burdening of the mechanics of accent assignment, and the fact that such a description relies on the idea that there is some form of 'normal' accentuation ('broad focus'), the play doesn't work: as Ladd himself points out (personal communication), there would be no accounting for a sentence like He TOOK the garbage out, unless the garbage out is taken to be a constituent by the side of took. I have included his example as (114). It is pointed out that the Slaughter-house example corresponds to (126).

12 It is, however, the semantics rather than syntactic structure that provides the stronger link. For one thing, unlike adverbs of 'proper functioning', an object complement can, for whatever reasons, be assigned to a separate focus domain, as in

(1) They left the first team! GASPing!

For another, if the object complement denotes a degree of 'proper functioning', it may behave just like the adverb:

(2) If it doesn't do what you WANT it to do, you've probably spelt the command word wrong but with a [-focus] Argument:

(3) BeLIEVE me. If you get a result bigger than ONE or smaller than MINus one, you've DONE it wrong!

13 I owe the example to Ton Broeders. It is interesting to note that the original of (71) was Hij is met zijn zoon met fietsen ("He's gone cycling with his son"). As cycling with one's son is a fairly everyday activity for a father to go in for in the Netherlands, the Dutch sentence naturally has a single focus domain. The English translation, however, provoked some protest from native speakers, who seemed to require an accent on cycling, in the same way as they would put one on fishing. By the same token, (70) may be more illustrative of the point at issue if fishing is replaced with hunting. These cultural differences would seem to support the analysis offered.

14 I thank Pieter Nieuwint for drawing my attention to this fact.

15 A syntactic correlate between focus-governing not and not as part of the [-focus] material can be observed when we add a focus-governing adjunct like also. Note that He didn't kill John is ambiguous between:

\[
\begin{array}{c}
[\text{he killed } x] & [x \rightarrow \text{John}] \\
[-focus] & [+focus]
\end{array}
\]

and

\[
\begin{array}{c}
[\text{he didn't kill } x] & [x \rightarrow \text{John}] \\
[-focus] & [+focus]
\end{array}
\]

In (1), the fact that 'he' killed someone is part of the Background, and the variable is that this is not true for John. In (2), the fact that 'he' didn't kill someone is part of the Background, and the variable is that this is true for John. When we add a focus-governing additive adjunct, we get not...too in (1), but not...either in (2): he didn't kill John! TOO! versus he didn't kill John! EITHER!. Cf. also Ladd's 'inside NEG' and 'outside NEG' (1981b).