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Functional Grammar and Systemic Functional Grammar: a preliminary comparison
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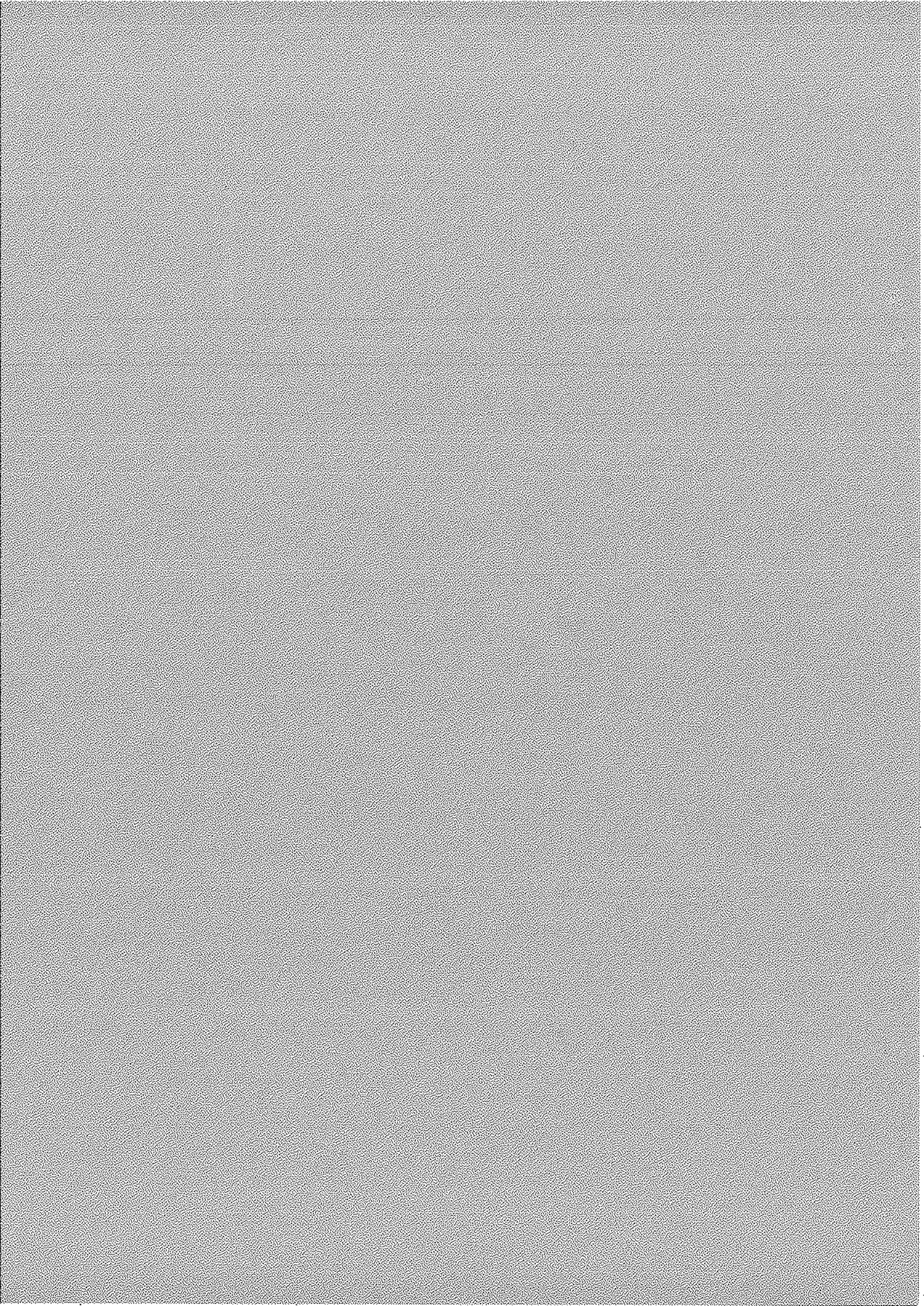
1. *Aims and scope*

One of the most significant trends in the linguistics of the past 20 years or so is an increased interest in, and development of, functionally-oriented grammars. Nevertheless, comparisons between functional approaches are almost non-existent (see, however, Cumming and McGregor, in preparation). A brief, although useful, review of a number of functional approaches was presented by Nichols (1984), but is now somewhat outdated. The aim of the present paper is to take some first tentative steps towards the comparison of two major functional models, **Functional Grammar (FG)** and **Systemic Functional Grammar (SFG)**. I shall take as the main basis for comparison the most recent full-scale expositions of the two theories, namely Dik's *The Theory of Functional Grammar, Part 1* (1989) (henceforth *TFG1*) and Halliday's *Introduction to Functional Grammar* (1985) (*IFG*) respectively, though other work will be brought in when appropriate.

The paper is organised in the following way. First I shall discuss the general philosophies of the two theories. In the course of this discussion I shall use the area of illocution as an extended example. There will then be a comparison of the form of the grammars as a whole. I shall then look at two specific areas (typologies of States of Affairs, the layering hypothesis) in more detail.

2. *General philosophies*

An attempt to compare two theories can be valid and insightful only if the theories are trying to achieve at least some of the same goals. I shall therefore begin by looking for some points of general agreement between the two approaches, and then go on to examine some areas of difference.

2.1 Points of agreement

As Nichols (1984: 101-102) has observed, "the essence of functionalism [...] is that language meets communicative ends", and this orientation distinguishes truly functional theories from others which are primarily formal, but include the term 'functional' in their names (the most obvious example being lexical functional grammar), and also from theoretical accounts which may include functionally-oriented statements (for example, much of the work of Susumo Kuno). Dik, in a discussion of the notion of 'functional explanation', makes precisely the same claim:

> The primary aim of natural languages is the establishment of inter-human communication; other aims are either secondary or derived. (Dik 1986: 21)

Statements by Dik at the beginning of *TFG1* take up this point, and emphasise that language is seen in FG as an instrument for

social interaction, rather than primarily as a set of sentences viewed as purely formal objects:

> In the functional paradigm, ... a language is in the first place conceptualized as an instrument for social interaction among human beings, used with the intention of establishing communicative relationships. Within this paradigm one attempts to reveal the instrumentality of language with respect to what people do and achieve with it in social interaction. (Dik 1989: 3)

> A natural language is an instrument of social interaction. That it is an instrument means that it does not exist in and by itself as an arbitrary structure of some kind, but that it exists by virtue of being used for certain purposes. These purposes concern the social interaction between human beings. (Dik 1989: 4)

Similarly, Halliday sees his theory as addressing the question:

> How do people decode the highly condensed utterances of everyday speech, and how do they use the social system for doing so? (Halliday 1978: 83)

He states that he is "trying to characterize human interaction" (Halliday 1978: 51), and that the orientation of the theory "is to language as social rather than as individual phenomenon" (Halliday 1985: xxx).

It now needs only a small step to arrive at a further claim shared by the two theories, viz. that rules and principles should, where possible, be explained in functional terms. Here, the term 'functional' is being used in the sense of 'motivated by the ways in which language is used', as is obvious from the following statements:

> a theory of language should not be content to display the rules and principles underlying the construction of linguistic expressions for their own sake, but should try, wherever this is possible at all, to explain these rules and principles in terms of their functionality with respect to the ways in which these expressions are used. (Dik 1989: 4)

> Language has evolved to satisfy human needs; and the way it is organized is functional with respect to these needs – it is not arbitrary. A functional grammar is essentially a 'natural' grammar, in the sense that everything in it can be explained, ultimately, by reference to how language is used. (Halliday 1985: xiii)

Dik and Halliday both take the line that any overt grammatical difference should, at least initially, be regarded as carrying a functional burden:

> Whenever there is some overt difference between two constructions X and Y, start out on the assumption that this difference has some kind of functionality in the linguistic system. (Dik 1989: 17)

> we must admit theoretically ... that there is free variation in the grammatical system, with one meaning realized by two or more forms. But then I would add that we should always be suspicious when we find this, because it usually turns out that the distinction in the lexicogrammatical system does in fact express a more delicate distinction in the semantic system that we haven't yet got round to. (Halliday 1978: 44)

If language is to be seen primarily as a means by which addressees and addressors communicate, there can be very little point in studying the language system in isolation from its use. Dik makes this explicit as follows:

> Since a natural language is an instrument used for communicative purposes, there is little point in considering its properties in abstraction from the functional uses to which it is put. The system underlying the construction of linguistic expressions is a functional system. From the very start, it must be studied within the framework of the rules, principles, and strategies which govern its natural communicative use. In other words, the question of how a language is organized cannot be profitably studied in abstraction from the question of why it is organized the way it is, given the communicative functions which it fulfils.

> This means that linguistic expressions can be understood properly only when they are considered as functioning in settings, the properties of which are co-determined by the contextual and situational information available to speakers and addressees. Language does not function in isolation: it is an integrated part of a living human (psychological and social) reality. (Dik 1989: 5-6)

This passage deserves close scrutiny, and I shall return to it later in connection with other issues. For now, however, let us note the very similar general line taken by Halliday:

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> The particular form taken by the grammatical system of a language is closely related to the social and personal needs that language is required to serve. But in order to bring this out it is necessary to look at both the system of the language and its functions at the same time; otherwise we will lack any theoretical basis for generalizations about how language is used. (Halliday 1970: 142)

In a view of language in which the emphasis is on the communication of facts, ideas, beliefs, attitudes, and so on, it is natural that meaning, in its various guises, should play a major part, and that syntactic form should be seen as one of the means for the realisation of meanings, rather than elevated to a position of centrality in the theory. Again, FG and SFG agree on this, and both thus differ sharply from transformational generative grammar and other theories in which syntax occupies the centre ground:

> Semantics is regarded as instrumental with respect to pragmatics, and syntax as instrumental with respect to semantics. (Dik 1989: 7)

> A language is interpreted as a system of meanings, accompanied by forms through which the meanings can be realized. The question is rather: "how are these meanings expressed?". This puts the forms of language in a different perspective: as a means to an end, rather than as an end in themselves. (Halliday 1985: xiv)

Both theories therefore reject the claim that syntax is to be seen as an autonomous level. There are two aspects to this rejection: firstly, as seen from the above quotations, syntax plays an instrumental rather than a primary role in language; but secondly, both Dik and Halliday cast doubt on the possibility of drawing a dividing line between semantics and syntax:

> In this view there is no room for something like an "autonomous" syntax. On the contrary, to the extent that a clear division can be made between syntax and semantics at all, syntax is there for people to be able to form complex expressions for conveying complex meanings, and such meanings are there for people to be able to communicate in subtle and differentiated ways. (Dik 1989: 7)

> there is no clear line between semantics and grammar, and a functional grammar is one that is pushed in the direction of the semantics. (Halliday 1985: xix)

Finally, given the considerations outlined above, both Dik and Halliday prefer a functionally-oriented view of language acquisition to a structurally-based view:

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From a functional point of view, ... it is certainly
more attractive to study the acquisition of language
as it develops in communicative interaction between
the maturing child and its environment, and to
attribute to genetic factors only those underlying
principles which cannot be explained as acquired in
this interaction. (Dik 1989: 6)

Early language development may be interpreted as the
child's progressive mastery of a functional potential.
(Halliday 1975: 5)

It should, however, be said that whereas SFG has actually been
used as the basis for studies of acquisition (see Halliday 1975,
Painter 1984), no such studies are available within a FG
framework to date.

2.2 Points of difference

The similarities in general approach discussed in §2.1 are, I
think, sufficient to demonstrate that the comparison of FG and
SFG is not a fruitless or invalid exercise. There are, however,
some important points of difference between the two theories with
respect to their overall philosophies.

2.2.1 Language system, language use and pragmatic adequacy

A very significant difference is concerned with the relationship
between the language system and language use. Dik clearly
envisages two separate sets of rules:

From the functional point of view, then, linguistics
has to deal with two types of rule systems, both
ratified by social convention:
(i)   the rules which govern the constitution of
linguistic expressions (semantic, syntactic,
morphological, and phonological rules);
(ii) the rules which govern the patterns of verbal
interaction in which these linguistic expressions
are used (pragmatic rules). (Dik 1989: 3)

Halliday, however, has little use for the concept of pragmatic
rules or principles as a separate component of the overall system
of linguistic communication. For him, the difference alluded to
by Dik is a false one, since the grammar itself aims to give an
account of all the choices available to communicators, and the
realisations of these choices (for the importance of the idea of
choice in SFG, see §3). Significantly, however, it is very hard
to find any references, in Halliday's work, to this major
difference between SFG and many other approaches to language.
This is but one facet of a tendency for systemicists to be
reluctant to bring their own models face to face with those from
other traditions; for further analysis of this issue, see Butler
(1988a, 1989).

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If, then, Dik regards the linguistic system and the use of the system as being describable in terms of two separate sets of rules, what are the links between the two? Since FG, as we have seen, sees language primarily as a means of communication and a social tool, one might expect the 'pragmatic' rules and principles to occupy a prominent place in the theory. This expectation is encouraged by the parts I have italicised in the following passages from *TFG1*:

> the basic requirement of the functional paradigm is that linguistic expressions should be described and explained *in terms of the general framework provided by the pragmatic system of verbal interaction.* (Dik 1989: 3)

> we must not think of linguistic expressions as isolated objects, but as instruments which are used by a Speaker in order to evoke some intended interpretation in the Addressee, *within a context defined by preceding expressions, and within a setting defined by the essential parameters of the speech situation.* (Dik 1989: 13)

Nearby in the book, however, Dik presents us with a subtly but significantly different picture of the relationship (again, the italics are mine):

> although in itself a theory of linguistic expressions is not the same as a theory of verbal interaction, it is natural to require that it be *devised in such a way that it can most easily and realistically be incorporated into a wider pragmatic theory of verbal interaction.* (Dik 1989: 4)

Here, the 'pragmatic theory of verbal interaction' is not seen as determining the shape of the theory of linguistic expressions, but as providing a framework with which the theory of expressions should be compatible. In practice, it is the second of these views which Dik adopts in *TFG1*. The standard of 'pragmatic adequacy' to be aimed at is set out clearly in the following passage:

> We saw above that a functional grammar must be conceptualized as being embedded within a wider pragmatic theory of verbal interaction. Ultimately, it would have to be capable of being integrated into a model of NLU [the Natural Language User (CSB)]. We shall say that the degree of pragmatic adequacy of a functional grammar is higher to the extent that it fits more easily with such a wider, pragmatic theory. (Dik 1989: 12)

It is arguable that even this weakened form of pragmatic adequacy is by no means achieved in *TFG1* (see also Butler forthcoming a), although current work by Dik and other functional grammarians (especially Mackenzie, Hannay and Keizer) affords hope of

substantial progress. There are in fact very few places in *TFG1* where the grammar is brought face to face with pragmatic constraints. There is a brief discussion of reference to entities (Dik 1989: 111-15). Illocutionary phenomena and other aspects of speech acts get similarly brief treatment (254-61), and the pragmatically highly significant processes of 'illocutionary conversion' (eg. tag addition) are merely mentioned in passing, though we are promised (256) a more detailed account of an FG approach to illocutions in *TFG2*.

Obviously the main area where the grammar comes into intimate contact with the pragmatics is that of the pragmatic functions. Even here, however, there are serious problems. Of particular relevance to the present comparison of FG and SFG are problems arising out of Dik's use of single-sentence examples, or at most adjacency pairs, often constructed rather than attested. Mackenzie and Keizer (1990) have shown very convincingly that when the account of clause-internal pragmatic functions in *TFG1* is applied to even a simple whole text, a number of important inconsistencies and inadequacies emerge. Their own work provides solutions to some of these problems, for instance by demonstrating that the Topic/Focus and Given/New dimensions should be kept separate rather than integrated as in Dik's account. The source of these problems with pragmatic functions in Dik's account is particularly telling within the context of a comparison with SFG because of the very great importance accorded to the concept of text in Hallidayan linguistics. For Halliday (1978: 109), a text is "the basic unit of the semantic process", and it is fair to say that a very large proportion of recent work in systemic linguistics has been concerned with the description of text organisation in its various manifestations. *IFG* itself is intended, not as a statement about systemic theory as such, but as "a grammar for the purposes of text analysis" (Halliday 1985: xv). The recent work of systemicists such as Hasan, Martin, Ventola and Lemke has included detailed descriptions of textual macrostructure and of the relationship between language, register, genre and, more recently, ideology. (For a brief review of these recent developments see Butler (1989)).

To some extent, Dik's apparent reluctance to engage wholeheartedly with pragmatic phenomena and textual macrostructure is understandable - and we must not forget that a second volume of *TFG* is yet to appear, which may well alter the overall picture considerably. Dik's work places a high value on rigour of argumentation, a characteristic perhaps associated more readily with 'formal' than with some 'functional' grammars. When one lets loose the floodgates of pragmatics and text structure things inevitably get messy and more difficult to argue about in an acceptably rigorous fashion. The hiving off of much of this messiness into a separate theory of verbal interaction relieves the functional grammarian of an uncomfortable burden, though it is not at all clear whose task it might be to provide this encompassing theory. And yet I remain unconvinced by Dik's approach to this crucial issue. Firstly, *TFG1* takes very little account of what we already know about large areas of pragmatics

(for instance: speech acts, politeness phenomena and other text/context relations). Secondly, and even more importantly, Dik's approach seems to me to be fundamentally at odds with the requirement that FG should (eventually) provide an answer to the question which Dik sees as "the ultimate question one is interested in" as a functional linguist:

> How do speakers and addressees succeed in communicating with each other through the use of linguistic expressions?" (Dik 1989: 1).

Halliday asks very similar questions within the context of SFG, but arrives at very different conclusions regarding the relationship between grammar and pragmatics. It should be said at the outset that Halliday does not favour the use of the term 'pragmatics'. There are two clear reasons for this: firstly, as we have seen, he has no wish to suggest that there is some separate component of the communicative apparatus that can be recognised and labelled in this way; secondly, pragmatics as a sub-discipline of language study has arisen mainly as an offshoot of theories which Halliday (1985: xxviii) characterises as "the formal grammars, with their roots in logic and philosophy" rather than of "the functional ones, with their roots in rhetoric and ethnography", of which, of course, SFG is a clear example. Despite this eschewal of the term, accounts of many phenomena which are recognised by many linguists as belonging within the province of pragmatics (as well as others, such as discourse structure, which are regarded by some as belonging to pragmatics, but by others as different) are not only built into SFG, but central to the theory. I shall illustrate this aspect of SFG by a brief discussion of Halliday's account of illocutionary phenomena (see Halliday 1984: 11-16, 1985: 68-71).

As might be expected, Halliday prefers not to use the term 'illocutionary force', but opts for the more functionally-oriented term 'speech function'. From the outset, speech function is seen as basically a discourse phenomenon, and the set of choices[1] available to addressees in this area as the fundamental mechanisms for setting up a dialogue. These choices are characterised in terms of two cross-cutting sets of distinctions: whether something is being given or being asked for, and whether that something is information or goods-and-services. The four logically possible combinations give rise to four basic speech functions as shown in Figure 1:

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[1]See §3 for a discussion of the importance of the concept of choice in SFG.

	information	goods-and-services
giving	statement	offer
demanding	question	command

Figure 1: Speech functions in Halliday's model

For each of these categories, there is a preferred and a dispreferred response in discourse. For instance, the preferred response to an offer is an acceptance, while the 'discretionary alternative' is a rejection of the offer. Each of the main speech function categories, except offer, is 'congruently' expressed by means of one of the major mood categories: statements by declaratives, questions by interrogatives, commands by imperatives. However, as is well known from the wealth of information in the pragmatic literature, many other types of realisation are possible. Commands (or, to use a more neutral term, directives) are particularly prone to realisation by 'non-congruent' means, and in English this may mean 'borrowing' interrogative or declarative moods, using modal expressions as mitigators, etc. For Halliday, this is one manifestation of a very general and widespread phenomenon which he terms 'grammatical metaphor' (see Halliday 1985: 321 ff.); a further example would include the use of nominalisations as non-congruent ways of expressing events or whole situations.

The phenomena included under speech functional grammatical metaphor in Halliday's account would presumably be handled in terms of the 'grammatical' sub-type of illocutionary conversion in FG (Dik 1989: 257). There are, however, some crucial differences between the approaches. Although the matter is not discussed by Halliday, it would seem consistent for all directively-used sentences, even the most obliquely directive declarative forms, to be treated, at primary delicacy, as 'commands', defined by the 'semantic' features [goods-and-services, demanding]. The primary category could be divided into sub-types (eg. 'order', 'request', etc.), but there would still be an enormous variety of mappings between the semantic categories and their possible realisations in form. Leech (1983) has argued that Halliday's all-embracing speech function categories are the product of overgrammaticalisation. As Leech sees it, illocution is a matter for a general pragmatics, based on rhetorical principles, rather than for the grammar, which he sees as based on categorial rules operating on at times fuzzy categories. I have argued elsewhere (see Butler 1988a) that Leech's criticisms have considerable force, and more generally that practitioners of SFG would do well to pay more attention to what has been going on in pragmatics. The main point to make here, though, is that Dik's approach to illocution does allow for a clear distinction to be made between the rules which determine the shape of linguistic expressions and the principles which allow speakers to manipulate the 'basic illocutions' coded in the grammars of all languages (corresponding to the sentence types

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Declarative, Interrogative and Imperative) in order to achieve particular communicative effects. There is still lively debate about the status of those realisations of speech acts which, though not 'congruent' in Halliday's terms, have been 'conventionalised' so that they are no longer felt to be indirect. An example would be a modalised interrogative of the *Could you ...?* type, used as a request. For discussion in relation to SFG, see Butler (1987), and for rather different conclusions within a FG approach Risselada (1990).

The differences between SFG and FG which may be illustrated from the area of illocution actually run even deeper than is suggested by the above discussion. A systemicist will not be content to specify the possible alternative realisations for particular speech function categories, but will want to take the further step of finding out what conditions the choice of a particular realisation in a given case. As I have pointed out elsewhere (Butler forthcoming b), Halliday's own accounts of speech function have little to say on this specific issue. He has, however, provided the theoretical mechanisms for dealing with it, in the shape of what might be termed the 'register-metafunction hookup'. A few words of explanation are clearly required with respect to the terms 'register' and 'metafunction', and the ways in which they are claimed to interact (for further details and discussion see Butler 1985a: 64-7).

Halliday and his colleagues (especially Ellis, Ure and Gregory) were instrumental in the development of a theory of register in the 1960s (see for example Ellis and Ure 1969, also the simplified but clear account in Halliday, McIntosh and Strevens 1964) which was based on the situation-type categories of field, tenor and mode. Field was concerned with the nature of the social process being engaged in, including the subject matter; tenor had to do with the relationships between participants in an interaction, in terms of social roles; mode was concerned with the channel of communication (basically spoken/written, though see Gregory (1967) for a more realistically complex picture) and the rhetorical function of the communication (whether to inform, persuade, entertain, etc.). The early work on register tended to look for influences of these situation-type categories on formal features of language, that is on the syntax and lexis of texts. The findings were often either trivial or lacking in any clear pattern, so that register studies came to have a rather bad press. More recently, in line with developments in the theory as a whole, Halliday has reformulated his views on register in semantic terms:

> A register can be defined as the configuration of semantic resources that the member of a culture typically associates with a situation type. It is the meaning potential that is accessible in a given social context. (Halliday 1978: 111)

What we should be looking for, then, is not direct effects on the frequencies of particular lexical items or grammatical

constructions, but relationships between situational parameters and meaning types.

Since the late 1960s, a crucial feature of SFG has been the proposed organisation of the linguistic system into three major areas of semantically-based choice, labelled the **ideational, interpersonal and textual metafunctions**, the ideational consisting of two sub-functions, the **experiential** and **logical**. The ideational metafunctional component of meaning is concerned with the representation of our experience of the world outside and inside us (experiential) and of the relationships between the situations encoded in propositions (logical). The interpersonal metafunction is concerned with the establishment and maintenance of social relationships and the expression of personal opinion and attitude. The textual function is concerned with the organisation of messages as information, and plays an enabling role with respect to the other two. At clause rank, the experiential part of the ideational function is represented by choices concerned with types of processes, participants and circumstances (Halliday's label is **transitivity**; the corresponding area of FG is the typology of States of Affairs and of the entities and circumstantial elements involved in them). The interpersonal metafunction is represented by choice of **mood** and **modality**, and the textual by choices in **theme** (defined as "the element which serves as the point of departure of the message" (Halliday 1985: 38), and so not to be confused with the FG use of the same term), and in information structure (concerned with the dimension of Given and New, and realised intonationally in English).

The 'hookup' between register and metafunction alluded to earlier consists in the claim that

> ... the type of symbolic activity (field) tends to determine the range of meaning as content, language in the observer function (ideational); the role relationships (tenor) tend to determine the range of meaning as participation, language in the intruder function (interpersonal); and the rhetorical channel (mode) tends to determine the range of meaning as texture, language in its relevance to the environment (textual). (Halliday 1978: 117)

Here, then, we have a proposal which allows us to predict which aspects of the social situation will predominantly affect the choice of particular types of meaning, and thus ultimately the formal realisation of those meaning choices. It is a proposal which, potentially at least, takes an important step in the direction of a pragmatically adequate account of language. Crucially, this step ties the language system to what, for Dik, would presumably be part of a pragmatic theory of verbal interaction, and actually builds the hookup into the theory.

The attentive reader will have noted the ominous use of 'potentially' in the last paragraph. Indeed, it is my view that the register-metafunction hookup hypothesis is at present badly

flawed by the lack of adequate characterisation of either the
metafunctions or field, tenor and mode. This is not the place
to go into detailed criticism, and the interested reader can find
the relevant arguments elsewhere (Butler 1985a: 83-90,
forthcoming b). However, these criticisms should lead us, not
to jettison the idea that we might be able to account for aspects
of meaning choice in terms of situation type parameters, but
rather to attempt a more adequate characterisation of the
concepts and terms on both sides of the proposed correlation.
If this can be done, and if painstaking textual and situational
analysis can validate the hookup hypothesis, SFG will be able to
boast a far greater degree of pragmatic adequacy, at least in
this limited area, than FG has yet achieved.

To return for a moment to our illustration involving
illocutionary matters, we can say that a (strengthened) SFG
account may be able to explain why particular choices of
realisation are chosen in texts, by reference to the situational
parameters of text production and reception. The hookup here
will clearly involved matters such as politeness strategies (see
Butler 1988b for a systemically-grounded account of politeness
in relation to modalised directives in English). Clearly,
though, the potential of Halliday's hypothesis goes much further
than this, towards a global characterisation of the relationship
between meaning and the 'immediate' situation.

The rather different viewpoints of Dik and Halliday with respect
to the relationship between language system and language use
also have implications for the place of the competence/
performance dichotomy in the two theories. Dik recognises the
value of the distinction, but naturally wishes to replace the
Chomskyan notion of competence with the more pragmatically-
oriented concept of communicative competence:

> The psychological correlate of a natural language is
> the NLU's "communicative competence" in the sense of
> Hymes (1972): his ability to carry on social
> interaction by means of language. (Dik 1989:5)

Halliday, on the other hand, finds even Hymes' view unnecessary
and unhelpful:

> ... in an inter-organism perspective there is no place
> for the dichotomy of competence and performance,
> opposing what the speaker knows to what he does.
> There is no need to bring in the question of what the
> speaker knows; the background to what he does is what
> he could do - a potential, which is objective, not a
> competence, which is subjective. (Halliday 1978: 38)

> Hymes is taking the intra-organism ticket to what is
> actually an inter-organism destination; he is doing
> 'psycho-sociolinguistics', if you like. There's no
> reason why he shouldn't; but I find it an unnecessary
> complication. (Halliday 1978: 38)

He acknowledges that the two approaches can be seen as different sides of the same coin, but insists that the difference in viewpoint is nevertheless important:

> ... the two are, to an extent, different ways of looking at the same thing; but the former, 'inter-organism' perspective has different implications from the latter, the 'intra-organism' one. (Halliday 1973: 25)

In summary, then, some of the principal differences in overall philosophy between FG and SFG are concerned with the extent to which matters of a pragmatic nature, matters relating to textual macrostructure, and text-context relations, are treated as part of the theory itself. Dik tries to keep the linguistic theory relatively 'pure', leaving a great deal for a separate theory of verbal interaction. Halliday, on the other hand, wants to build as much as possible into the theory itself, including models of text structure and of text-context relations, and this leads to the semanticisation of what for some linguists are more properly regarded as pragmatic and/or discoursal categories.

In my view, Dik's approach leaves so much to an undiscussed pragmatic theory that it cannot, in its present state, claim to achieve a high degree of pragmatic adequacy. On the other hand, Halliday's approach runs the risk of bundling together, in an all-encompassing semantics, phenomena of relatively distinct kinds, which might be better handled in terms of different components of an overall theory. The best way to proceed would surely be to attempt, as a matter of priority, a more adequate formulation of pragmatic phenomena (to include a strengthened apparatus for the description of situation types) which could be truly integrated with a theory of linguistic expressions. This integration would, if we could be open-minded enough, lead to a fairly radical reorientation of much of our current thinking in both FG and SFG. As far as FG is concerned, it is to be hoped that the availability of the requisite pragmatic theory would lead to a situation where the development of the grammar was actually led by the pragmatics, rather than taking compatibility as the criterion for pragmatic adequacy.

2.2.2 Psychological adequacy

Dik is concerned not only with pragmatic adequacy but also with the psychological plausibility of his theory:

> such a grammar must also aim at psychological adequacy, in the sense that it must relate as closely as possible to psychological models of linguistic competence and linguistic behaviour. (Dik 1989: 13)

Note that as with the *de facto* interpretation of pragmatic adequacy, the criterion is that the theory should be **compatible with** what is known about psycholinguistic processing, rather than that it should be formulated **on the basis of** our psycholinguistic knowledge. Recently, Dik has begun to develop a computational

model of the natural language user, the linguistic component of which is FG as presented in Dik (1989). A particularly well-researched review of Dik's computational model is presented by Hesp (1990), who concludes not only that the model does not achieve psychological adequacy, but that it is in principle incapable of doing so, given its present formulation. It may well be that at certain points Hesp has misunderstood Dik's intentions, but there is much in his critique which requires an answer. Aspects of FG not mentioned by Hesp might also be criticised: for instance, Dik's (1989: 78 ff.) account of the interpretation of metaphor involving the violation of semantic selection restrictions appears to be incompatible with what is already known about the processing of metaphors in natural contexts (see Gibbs 1984, Butler forthcoming a).

At least Dik is concerned with matters of psychological adequacy. Halliday, however, has always been much less preoccupied with the psychological aspects of language than with the sociological:

> The orientation is to language as social rather than as individual phenomenon, and the origin and development of the theory have aligned it with sociological rather than psychological modes of explanation. (Halliday 1985: xxx)

Halliday goes on to say that the theory "has been used within a general cognitive framework": this is presumably a reference to the work of Fawcett, who insists, rightly in my view, that the sociological and the psychological are not mutually exclusive orientations, but that on the contrary

> ... various aspect of language - and in particular those related to social interaction - can, and for many purposes must, be set within a model that is cognitive. (Fawcett 1980: 1)

Fawcett (1980: 7) sees himself as modelling "the psychological reality of language", and takes it as axiomatic that

> a language-user has one grammar of his language, whether it is active in production or reception, or is simply being stored between times of use (Fawcett 1980: 8)

He points to the importance of experimental psycholinguistics in evaluating the psychological adequacy of a model:

> It is clear that psycholinguistic experiments, drawing on the expertise of psychology, have an important role to play. Even if it is not possible to produce by this means a complete case to prove that a particular model is using the correct principles, linked sets of experiments can provide an overall indication of the plausibility or otherwise of a model. (Fawcett 1980: 9)

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He also observes, however, that much of experimental psycholinguistics is not done in order to evaluate specific models, and that we may have to rely on a secondary evaluation criterion, the possibility of incorporating the model into an automaton. The history of computational linguistics over the past two decades in fact demonstrates very clearly that systemic grammars have considerable advantages as bases for computational models (for a brief review of these developments see Butler forthcoming c), and indeed much of Fawcett's own recent work has been concerned with the construction of a natural language processing system, COMMUNAL, which builds in a very large systemic functional grammar. However, computational models are indeed just models, and we must not fall into the trap of assuming that because a model of some linguistic phenomenon can be successfully built into a computational system, that system necessarily simulates faithfully the behaviour of a human language user. As Fawcett (1980: 18) recognises, "the only types of test of the psychological reality that can have true validity are, by definition, psycholinguistic tests".

2.2.3 Typological adequacy

The FG literature makes it abundantly clear that typological investigations come high on the list of priorities for the theory. Dik states of FG

> ... that it should be *typologically adequate*, i.e., that it should be capable of providing grammars for languages of any type, while at the same time accounting in a systematic way for the similarities and differences between these languages. (Dik 1989: 14)

It is arguable that the degree of typological adequacy already achieved by the theory is one of its strongest points. *TFG1* itself contains discussion of more than 80 languages, and there have been numerous detailed descriptions of phenomena in a wide range of languages within the FG framework. The parts of *TFG1* which deal with universally-relevant hierarchies are among the most innovative and interesting. It is striking, however, that a large proportion of the references to languages other than English in *TFG1* are concerned with just two areas: Subject/Object assignment and expression rules. Although this is to some degree understandable, in that the more formal aspects of the grammar are easier to compare across languages, it would be good to see more cross-linguistic work on semantic and pragmatic areas.

Typological adequacy, like psychological plausibility, has never been high on the SFG agenda. Although in *IFG* Halliday (1985: xxxiv) clearly recognises "the tendency to ethnocentrism in modern linguistics", his own work, apart from the early studies of Chinese, has been entirely on English, and this has inevitably had a strong influence on the shape of the theory. Halliday by no means denies the possibility of finding universal features of language; indeed, certain fundamental claims of the theory are said to have universal validity:

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An example of this is the 'metafunctional' hypothesis: it is postulated that in all languages the content systems are organized into ideational, interpersonal and textual components. This is presented as a universal feature of language. But the descriptive categories are presented as particular. (Halliday 1985: xxxiv)

Elsewhere, Halliday has claimed that the rank-based organisation of the grammar is universal (Halliday, McIntosh and Strevens 1964: 31), and has referred to certain developmental functions in early child language as "universals of human culture" (Halliday 1975: 33). Nevertheless, he aligns himself with what he considers to be a general feature of functional grammars, namely that "they tend to emphasize variables among different languages" rather than "to emphasize universal features of language" (Halliday 1985: xxvii). The number of SFG-based studies of languages other than English is steadily growing, and some recent studies have examined languages which are typologically very different from the well-known Indo-European families (see for example McGregor 1990), but it remains true, and highly significant, that the work of the best-known linguists working with the theory is almost exclusively on English.

2.3.4   Applicability

In FG, as in most grammatical theories, there has never been any explicit interest in the extent to which descriptions of languages based on the theory might be useful in various areas of applied language study. For Halliday, on the other hand, applicability is an extremely important evaluation criterion. The generalisation of this concern to other functional models, as in the following passage, perhaps overstates the case:

> Probably most people who have looked at language in functional terms have had a predominantly instrumental approach: they have not been concerned with the nature of language as such so much as with the use of language to explore something else. (Halliday 1978: 36)

Furthermore, Halliday himself is, of course, concerned with 'the nature of language as such'. Nevertheless, the striving for usefulness is very evident throughout Halliday's work, and is also an explicitly stated criterion for Gregory's work:

> We hope it will help us, ultimately, to make descriptions of discourses which are demonstrably of practical use and interest not only to linguists but also, and especially, to non-linguists. (Gregory 1985: 131)

I have already mentioned the successful application of systemic theories in computational linguistics, and the revealing descriptions of child language acquisition within the SFG

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framework. Other areas of fruitful application are stylistics (see for example Birch and O'Toole 1988) and educational linguistics (see Reid 1987). Reviews of all these applications can be found in Butler (1985a, 1985b, forthcoming c), where I suggest that the applicability of systemic theories is due in large part to the most prominent characteristics of the systemic approach: the importance of function in its various senses, the emphasis on meaning, the choice-based nature of the grammar (see §3.1), and the centrality of the concept of text.

3. *The form of the grammar*

Having sketched in the main similarities and differences in general approach, I now turn to more specific matters which, though obviously reflecting the philosophies of the theories, are concerned with the form and organisation of the grammars themselves.

3.1 Syntagmatically-based and paradigmatically-based grammars

FG is like most 'formal' grammars, and indeed most other functionally-oriented grammars, in being essentially a syntagmatically-based theory. That is, it is primarily concerned with the building up of **structures**, which in the case of FG are semantic structures which are later turned into fully specified formal structures by means of expression rules. In discussing SFG, however, I have already had occasion to mention the key concept of **choice**. A little history is perhaps in order at this point.

The earliest well-developed form of Halliday's grammar, known as Scale and Category grammar (Halliday 1961), gave equal weight to four categories: unit, structure, class and system. Units are the stretches of language which carry grammatical patterns (sentences, clauses, groups, words, morphemes); structures are the syntagmatic patterns which are found within the various units (eg. Subject + Predicator + Complement + Adjunct in a clause such as *John became a teacher recently*); classes are groupings of units which have particular structural functions in the next higher unit (eg. the adverbial class of groups acts at the Adjunct element of clause structure); systems formalised the paradigmatic contrasts available at particular points in structures (eg. the contrast between singular and plural in the nominal group). Later, however, Halliday suggested that paradigmatic relations are primary, constituting the basic, underlying relationships in language:

> ... it might be useful to consider some possible consequences of regarding systemic description as the underlying form of representation, if it turned out that the structural description could be shown to be derivable from it. (Halliday 1966a: 62)

The derivation of structure from systemic representations was to be accomplished by means of **realisation rules** which take a bundle of systemic features as input, and produce structural configurations as output. This increase in the importance of systems in the theory was accompanied by the suggestion that individual systems could be linked into 'networks' by dependency relations, certain (combinations of) choices leading to other, more 'delicate' choices. As an example, let us consider basic distinctions in mood in English main clauses. A clause must be either indicative or imperative, the contrast corresponding semantically to the difference between exchange of information and negotiation of action, and formally to the presence of a Subject versus its possible absence in an imperative. The choice of the feature [indicative] then leads to a further choice between [declarative] and [interrogative], associated with realisation rules involving word order, and we could then go on to specify yet finer distinctions between types of interrogative. The basic system network can be represented as shown in Figure 2:
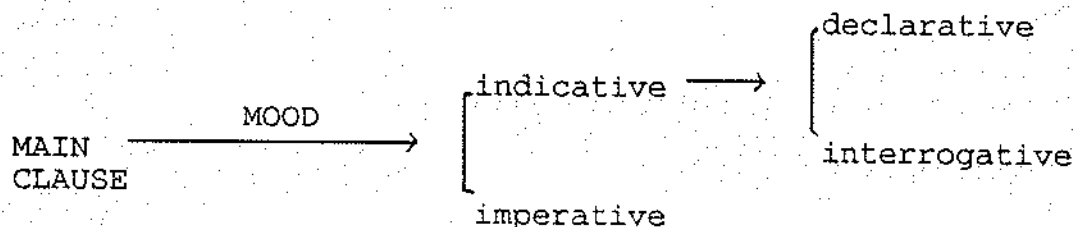

Figure 2: a simplified system network for mood

The underlying paradigmatic relations are already seen, at this time, as semantically-based:

> .. underlying grammar is 'semantically significant' grammar, whether the semantics is regarded, with Lamb, as 'input', or, with Chomsky, as interpretation. What is being considered, therefore, is that that part of the grammar which is as it were 'closest to' the semantics may be represented in terms of systemic features. (Halliday 1966a: 62-63)

and this was the cue for the increasing semanticisation of the grammar during the late 60s and early 70s (for a detailed account see Butler 1985a).

Although *IFG* is a description of the structures of English, Halliday makes it clear that the underlying theory is still based on choice:

> A systemic grammar is paradigmatic; hence there is no difference between description and agnation – describing something *consists in* relating it to everything else. Structure is an output device, the mechanism for expressing the choices that have been made. (Halliday 1985: xxvii, original emphasis)

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There is certainly a parallel between the realisation rules of SFG and the expression rules of FG, in that both serve to relate an underlying representation to the actual form of sentences. The inputs to the two sets of rules, however, are rather different: in FG the input to expression rules is a mixture of concrete predicates of the language and abstract grammatical operators; in SFG, on the other hand, the input is a set of abstract features selected from systemic networks. Is the concept of systemic choice, then, totally irrelevant to FG? I wish to argue that it is not, and that the incorporation of explicit paradigmatic relations into the grammar would be beneficial.

Any psychologically plausible model of the Natural Language User will not only have to build in the incontrovertible fact that speakers (consciously or unconsciously) make choices from the various possibilities afforded by the language they are using, but will also have to provide mechanisms by which these choices can be made. The fundamental decision in the generation of a clause structure in FG is, of course, the choice of a predicate, with its frame, from the fund, and indeed Dik himself (1989: 52) talks of speakers "selecting a predicate frame". Furthermore, many operators in FG clearly form small closed sets of semantically-related choices, as is clear from Dik's (1989: 138) statement that they are intended to "capture a limited number of crucial distinctions in some semantic domain". The examples given at this point in *TFG1* (singular-dual-plural number, past-present-future tense, positive-negative polarity, imperfective-perfective aspect-1, prospective-progressive-perfect aspect-2, possible-necessary mood, declarative-interrogative-imperative illocution) are straightforwardly equivalent to systems in SFG, with the exception that a systemicist might want to recognise sub-groupings corresponding to different stages in delicacy in a network (as with the mood network, related to the illocutions of FG - see above). In FG as currently conceived, the operators simply appear, out of the blue, in the underlying structures of linguistic expressions. It could well be that the formal specification of paradigmatic relations and dependencies between operators might provide a suitable mechanism for modelling this aspect of the Natural Language User. I shall also argue in §4 that the equivalent of systemic features is required for the insightful analysis of types of States of Affairs. Meanwhile, note that Dik himself seems to come quite close to some of these ideas in the following passage:

> FG is a complex layered network in which a great number of different elements may operate at different levels, creating all sorts of dependencies through the network. The expression rules, which mediate between this underlying network and the actual form of linguistic expressions, again form a complex interface, ... (Dik 1989: 51)

Clearly, Dik is not using the term 'network' in the technical sense of SFG, but the ideas are similar enough for us to hope

that the ideas expressed above would not be totally alien to his concept of FG.

3.2 'Top down' and 'bottom up' grammars

FG is basically a 'bottom-up' grammar, in that it is based on the concept of the predicate frame, around which a fully interpreted clause structure is gradually built. In *TFG1* there is an indication that 'top-down' influences may be important:

> In general, as we shall see as we go along, higher-level choices may constrain the lower-level articulation of the structure of the clause, and lower-level expression rules may be sensitive to the presence or absence of higher-level structural elements. Ultimately, a pragmatically adequate grammar will have to show in what respects the local organization of linguistic expressions is dependent on higher-level features of the discourse in which they occur. (Dik 1989: 51)

The fact that Dik uses the term 'choices' here adds some weight to my earlier conclusion that paradigmatic phenomena should be seen as important for FG as well as for SFG. It must be admitted, however, that there is little indication, in *TFG1* or elsewhere, of what higher level choices are important, or of how their influence on clause structure might be handled. Here, I return to the point made in §2.2.1: Dik's treatment of clause structure does not attempt from the beginning to build in the effects of discoursal phenomena as evidenced in examples of 'real' texts, but is content, for the present, to operate largely with the highly simplified picture given by minimally contextualised constructed sentences.

SFG, in contrast, is basically a top-down grammar, in two senses. Firstly, the most significant choices are made at clause or clause-complex (roughly equivalent to sentence) ranks, and the effects of these choices then filter down to condition choices at group rank and below. For instance, the SFG equivalent of FG's typology of States of Affairs is the network known as 'transitivity', and is concerned with the choice of a particular type of process, which is associated with a particular number and type of participants (see also §4). This network operates at clause rank, because all the basic structural elements in the clause are involved in this area of the grammar. But the choices made here at clause rank constrain the choice of features for the groups which represent the process, participants and attendant circumstances. For example, as we shall see later, the choice of a 'mental process' clause entails that one of the participants will be at least [animate], and probably [human], so that these choices are, as it were, preselected from those potentially available to the nominal group.

The second sense in which the grammar is top-down has to do with the importance of text/discourse in the grammar. As we have seen in relation to speech function, the approach to lower-level

semantico-grammatical phenomena is strongly conditioned by the requirement that what is to be accounted for is the communicative use of language. Furthermore, much recent work by the Australia-based group of systemic linguists has been concerned with the ways in which linguistic choices are conditioned by, and in turn condition, choices in register and genre. Martin (1985), for example, has proposed a 'connotative semiotic' model (the term is derived from Hjelmslev) in which choices in genre lead to texts with particular 'generic structures' (see Hasan 1984, 1989), in which the various elements of structure constrain the local choice of values of the field, tenor and mode variables which define register, and the register values in turn constrain possible choices from the linguistic system networks. More recently, a fourth plane, that of ideology, has been built in, and is claimed to be a top-level constraint on genre selection (see Martin 1986). A brief review of these and related proposals can be found in Butler (1989).

3.3 Lexical and grammatical phenomena

The bottom-up versus top-down issue is related to another important difference between the two theories, concerned with the relationship between lexical and grammatical phenomena.

The lexical/grammatical distinction is crucial for FG. The basic predicates and basic terms of a language are listed in a lexicon which (augmented by derived predicates and terms) forms a separate component of the model, ie. the fund. The central element around which a clause structure is built up is a lexical one, selected from the fund. Only later, through the application of operators, do grammatical phenomena come into play.

The lexical/grammatical dichotomy is also crucial for FG in that it underlies the distinction between description in terms of satellites and in terms of operators:

> Operators are used to capture those modifications and modulations which can be brought about at the relevant level by grammatical means; satellites those that can be brought about by lexical means. (Dik 1989: 50)

For instance, in the clause:

> *Frankly, John didn't impress me yesterday*

the form *didn't impress* is the result of the application of the appropriate expression rules to an underlying expression involving a Level 2 operator for Past tense, while *yesterday* is a satellite at Level 2, also expressing past time. Similarly, the word order, assumed to be combined with falling intonation, encodes what for Dik is an illocutionary (Level 4) operator DECL, while the adverb *frankly* is an illocutionary satellite.

Present-day SFG presents a very different picture of the relationship between lexis and grammar (for a more detailed review see Butler 1985a: 128-37). The earliest work on lexis,

within the framework of Scale and Category linguistics, did suggest that

> ... for the moment it seems better to treat lexical relations [...] as on a different level, and to require a different theory to account for them."
> (Halliday 1961: 267)

The basic distinction was made in terms of closed systems of options versus open sets, and is very much in line with the FG position:

> ... grammar deals with closed system choices, which may be between items ('this/ that', 'I/ you/ he/ she/ we/ they') or between categories (singular/ plural, past/ present/ future); lexis with open set choices, which are always between items ('chair/ settee/ bench/ stool',etc.) (Halliday, McIntosh and Strevens 1964: 23)

The most cogent arguments for recognising lexis and grammar as separate were concerned with the fact that collocational relations between lexical items cut across grammatical classifications (Halliday 1966b). For instance, we talk of a *powerful argument* and a *powerful car*, but not *?powerful tea* (except in a jocular context), although all three are of the same primary grammatical structure (in Scale and Category terms, (m)mh, where m = modifier, h = head, and brackets indicate optionality); conversely, we speak of *strong tea* but we do not normally say *?He drives a strong car*. Furthermore, the same collocational patterns can be used with different grammatical patterns: *the power of his argument/car/?tea*, etc.

But even as early as the 1960s work, an alternative approach was adumbrated:

> The grammarian's dream is (and must be, such is the nature of grammar) of constant territorial expansion. He would like to turn the whole of linguistic form into grammar, hoping to show that lexis can be defined as 'most delicate grammar'. (Halliday 1961: 267)

In other words, it is hoped that ultimately, by making finer and finer distinctions within systemic networks, we may reach a stage where each individual lexical item is defined by a unique combination of features.

This bringing together of grammar and lexis has been favoured by the direction which systemic linguistics has taken during the last 30 years. In §3.1 I pointed out that from the mid-60s onwards, Halliday's grammar became increasingly semantically-oriented. In the light of this development, grammar and lexis came to be seen as part of a single 'lexicogrammatical' stratum, and the distinction between the two, in so far as it could be made at all, was viewed in terms of the realisation of meanings of varying degrees of specificity:

> Within this [lexicogrammatical] stratum, there is no
> hard-and-fast division between vocabulary and grammar;
> the guiding principle in language is that the more
> general meanings are expressed through the grammar,
> and the more specific meanings through the vocabulary.
> (Halliday and Hasan 1976: 5)

Fawcett (1980: 57-8) presents a rather similar picture, regarding
the lexicon as a very large network of features (in his case,
semantic rather than lexicogrammatical) which is integrated into
the whole complex of networks defining the meaning potential of
a language. So far, we have just a few examples of what lexical
networks would look like, all being from English: Berry (1977:
62) presents a network for distinguishing items referring to
members of the animal kingdom; Fawcett (1980: 153) gives networks
for certain types of action processes, and also (1987) for
'relational' processes (basically, processes of being and having
- see §4); Hasan (1987) discusses processes of disposal, realised
by verbs such as *give*, *share*, etc.

It seems to me that the concept of lexis as 'most delicate
grammar' is faced with considerable problems. Firstly, even if
we accept that grammar and lexis realise the same complex
underlying network of meaning relations, this does not logically
commit us to the claim that they themselves must be unified under
a single 'lexicogrammatical' level of description. Secondly, in
the semantically-grounded, paradigmatically-oriented present-day
version of SFG the collocational arguments for the separation of
lexical and grammatical patterning appear to have been simply
forgotten. But perhaps most disturbingly of all, the view that
individual lexical items can be defined in terms of sets of very
delicate features is tantamount to the claim that an exhaustive
componential definition can be given for all lexemes, a position
which has been strongly disputed in the literature on lexical
semantics (see, for example, Sampson 1979, Moore and Carling
1982: 126-39).

The FG position on lexical meaning avoids this dilemma in its
most extreme form, by proposing that each predicate is associated
with a set of meaning postulates which specify semantic
relationships with other predicates, without claiming to
constitute an exhaustive specification (see Dik 1989: 81 ff.).
Even this treatment of lexis, however, is open to criticism. As
Hesp (1990) has pointed out, Dik makes no provision for the non-
discreteness of meaning in terms of prototypes (see eg. Rosch
1978), nor for the non-denotational aspects of lexical meaning
which are often important for interpretation, and so for the
psychological adequacy of the model. Furthermore, lexical
definitions, in practice, are made relative to particular
contexts of interaction, so that context-independent
characterisations may well have little psycholinguistic
justification.

It should now be clear how the issue of lexical versus
grammatical phenomena is related to the difference between the
bottom-up orientation of FG and the top-down tendencies of SFG.

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In FG, selection of a lexical item, available as a predicate in the fund, is the basis for the build-up of structure. In SFG, lexical items are generated as the ultimate stage in a top-down process: for instance, the generation of the item *give* would begin with the selection, at **clause** rank, of a process with the features [material, action], and the meaning would then be progressively narrowed down by the selection of more and more delicate features which would ultimately define the lexical item in question. This seems to me to be one of the most crucial differences between the two theories. Nevertheless, we might expect that correlations could be made between the two approaches: choices between grammatical operators in FG should correspond to less delicate choices in SFG networks, while choices of satellite type should correspond to more delicate features in networks.

3.4 The abstract/concrete dimension and constraints on power

Dik states:

> In order to be applicable to languages of any arbitrary type, the theory must have a certain degree of abstractness. But in order to be practically applicable in the description of languages, the theory must be as concrete as possible: it must stay as close as possible to the linguistic facts as they present themselves in any language. (Dik 1989: 15)

Although, as we have seen, Halliday has not been primarily concerned with matters of typological adequacy, he would surely be sympathetic to the above statement. His grammar certainly tries to 'stay as close as possible to the linguistic facts', but it also provides for abstraction in the shape of systemic features. The example chosen by Dik (1989: 15-16) to illustrate his point is that of the definiteness operator, needed in order to generalise across definiteness phenomena in languages which express this meaning very differently. In SFG too, the general category of definiteness would be captured by means of a systemic feature which would be relevant across languages, but the realisation rules would specify the various ways in which this feature is expressed in different languages.

In order to avoid too great a degree of abstractness, Dik (1989: 17) wishes to constrain the power of the grammar as much as possible. This is achieved by the avoidance of transformations (in the sense of structure-changing operations such as deletion, substitution and permutation of elements), and also of filtering devices and abstract predicates such as were postulated, for example, in Generative Semantics. Here, there is a substantial measure of agreement between Dik and Halliday. In SFG, transformations and filtering devices are also absent, so that, as in FG, the realisation rules place elements in their correct positions, and there are no sequences of derivations involving the transmutation of one structure into another. However, although SFG does not make use of abstract predicates in the Generative Semantics sense, it could be argued that systemic

features are rather similar in their power. Certainly, despite the best efforts of Fawcett (1980: 101, 117) and Martin (1987) to draw up criteria for setting up systemic networks, most systemicists have paid little attention to the validation of networks, no doubt taking comfort in Halliday's (1985: xix) own view of his theory as "an extravagant theory, not a parsimonious one".

3.5 The concept of clause structure.

According to Dik

> Any natural language text may be exhaustively divided up into clauses and "extra-clausal constituents (ECCs). ECCs are not part of the clause proper, but more loosely associated with it in ways which can most adequately be described in terms of pragmatic functionality" (Dik 1989: 264)

ECCs include Initiator (eg. *well* at the beginning of an utterance), Address forms (eg. *Ladies and Gentlemen*), Theme (left-dislocated elements), parenthetical material of a Modal nature (eg. *so they say*), Tags (eg. *isn't it?*) and Tails expressing Clarification (right-dislocated elements). Dik (1989: 265) justifies the separate treatment of these elements in terms of four general properties: they may occur initially, finally or medially; they are typically separated from the clause proper by punctuation or intonation breaks; they are insensitive to clause-internal grammatical rules; and the clause structure is complete and grammatical without them.

Halliday's view of clause structure is more wide-ranging. The discussion of the textual organisation of the clause in Halliday (1967) includes left- and right-dislocated elements as part of the clause, treating them as realisations of particular choices in the area of thematic organisation (it will be remembered from §2.2.1 that Halliday uses the terms 'theme/thematic' in a very different way from Dik). These structures are not, however discussed in *IFG*. Initiator and Address elements are also included in Halliday's clause structures, and are indeed important to the concept of 'multiple theme' in SFG. Halliday's (1985: 55) view is that in a structure such as that exemplified by *Well but then Ann surely wouldn't the best idea be to join the group?* the Theme element comprises the whole of *Well but then Ann surely wouldn't the best idea*, the first three words being 'textual themes' of different kinds ('continuative', 'structural' and 'conjunctive'), the next three 'interpersonal themes' ('vocative', 'modal' and 'finite' respectively), and the Subject nominal group *the best idea* the 'ideational theme'. According to Halliday, there is always an ideational theme, the other two types being optional.

The difference between the two approaches arises from the more general differences discussed earlier. Dik is primarily concerned with specifying clause structures in such a way that the description will hook up with a theory of pragmatics. He

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therefore gives due weight to arguments arising from the internal structural behaviour of grammatical units. Halliday, on the other hand, starts from the opposite end: he is more concerned with how the language user can construct texts which not only convey ideational and interpersonal meanings, but also do so in a way which is coherent, both text-internally and with respect to the situation. He is therefore less preoccupied with formal structural criteria as such.

4. *Typologies of States of Affairs, process types and semantic functions*

Both FG and SFG give considerable prominence to the classification of what in FG are known as States of Affairs (SoAs) and in SFG as processes with their attendant participants and circumstances. As we saw earlier, the SFG term for this is **transitivity**. As we might expect from the discussion so far, the treatment of this are in the two theories shows many interesting similarities, but also some important differences. A comparative account of some of these features can be found in Goossens (1990).

Although it is a predicate, in its frame, which is selected as the basis for construction of clause structures, Dik (1989: 90) argues that the typologies of predicates to be found in the non-FG literature are better replaced by a typology of SoAs, since one and the same predicate can often occur in predications which designate different kinds of SoA. This agrees with Halliday's view that the classification of processes is intimately bound up with the participants (in FG terms, entities) and circumstances involved in the process.

At the outset, one very important difference of approach must be recognised. In FG, the set of predicates includes not only verbal but also adjectival and nominal expressions; in other words, FG takes over the logical approach to 'predication'. In SFG, however, no semantic class of predicates as such is recognised. Instead, 'Predicator' is used as a term on a par with Subject, Complement and Adjunct, to indicate the structural function of that part of the clause which is realised by the verbal complex minus any temporal or modal operator. Predicatively used adjectival and nominal expressions are regarded as Complements bearing semantic functions concerned with attribution or identification, and are thus not assimilated in any way to verbal predicating elements. Examples will make this clearer:

1.	*John*	*is*	*stroking*	*the cat*
FG	Argument 1 (Agent)	introduced by expression rules	Predicate	Goal
SFG	Subject (Agent/Actor)	Finite (	Predicator Process)	Complement (Goal)

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2.	*John*	*is*	*tall*
FG	Argument (Zero function)	introduced by Predicate expression rules	
SFG	Subject (Carrier)	Finite (Process)	Complement (Attribute)

In this respect, SFG is less abstract than FG: for English, it stays as close to the overt structures as possible. But in terms of the criteria for typological adequacy set up by Dik, the SFG representation is actually too concrete, since it fails to account satisfactorily for those languages which do not use the equivalent of *be*-support. For instance, Russian does not use any copular verb in present tense clauses with predicative adjectivals or nominals:

3. *On anglichanin.*
   (He Englishman = He is an Englishman)

The FG analysis of the underlying semantic structure of such a clause would be exactly the same as for the English clause *He is an Englishman*, the difference between the two languages being captured at the level of expression rules. SFG, on the other hand, would be obliged to say that there is neither a Finite element nor a Predicator in such a clause, so that the semantic parallel with languages such as English would be lost.

It seems to me, however, that there are also problems with the SFG analysis of English. Consider a pair of clauses such as:

4. *The towel dried.*

5. *The towel is dry.*

There are clear semantic relationships between such pairs, which can be captured within an FG predicate-based approach, but not within SFG, in which 4 has *dried* as the Predicator with Process semantic function, but 5 has *dry* as a Complement, with Attribute function, and the two elements are never allocated the same status at any level of description.

I would therefore agree with Goossens' statement that

> It is clear that FG has been quite successful in its attempt to view *be* as an expression phenomenon and in deriving the overall meaning of predications in which it occurs from predicate type and argument type. (Goossens 1990: 179)

and would add that Halliday's account is not abstract enough to be able to deal satisfactorily with some intra-language and inter-language phenomena.

Despite the rather crucial difference discussed above, it is possible, as Goossens (1990) has already shown, to draw

interesting parallels between the two theories. In Figure 3 I present some suggestions for equivalences between the FG and SFG typologies, based on a consideration of the criteria and examples in *TFG1* and *IFG*. Figure 4 gives examples of clauses of the various types.

Transitivity type	Defining FG features	Corresponding SoA type

Material
 	
[action,
    intentional]
[event] or
    [action, super-
    ventional]
	[+control]
	
	[-control]
		(no single type)
		
		Action/Position
		
		Process

Verbal	[+dynamic, +control]	Subclass of Action
Mental	[-dynamic, +experiential]	Experiential Situation
Behavioural	[+dynamic, +experiential]	Experiential Action or Process
Relational	[-dynamic, -experiential]	Non-experiential Situation
Existential	[-dynamic, -experiential]	Subclass of State

Figure 3: Tentative suggestions for equivalences between SFG and FG typologies of SoAs

Material, action, intentional	Action	John bought a car
Material, action, superventional	Process	John died
Material, event	Process	The water flowed out of the tube
Verbal	Action	John told a story
Mental	Experiential State	John saw the dog
Behavioural	Experiential Action	John thought about the problem
	Experiential Process	John dreamed about his girl friend
Relational	Non-experiential State	John is tall
	Non-experiential Position	John accompanied his wife
Existential	Non-experiential State	There's a dog in the garden

Figure 4: Examples showing putative equivalences between SFG and FG

Let us first consider the proposed equivalences between Halliday's process type categories and Dik's typology of States of Affairs, as seen in Figure 3. The material processes of SFG are characterised by the fact that "they express the notion that some entity 'does' something – which may be done 'to' some other entity" (Halliday 1985: 103). There is no equivalent label for this whole class in FG. Within the material class, however, earlier systemic accounts proposed a subdivision which appears to correspond partially to a distinction made in FG. Berry (1977: 151) recognises a distinction, within material processes, between an [action] type, where the process is normally performed by a human being, and an [event] type, normally having an inanimate participant as 'Actor'. Within the [action] type she then distinguishes between [intention] processes, brought about by the will of the Actor, and [supervention] processes, which just happen. Let us consider two of Berry's examples:

6. (= Berry's 8.9) *Peter swam to the island.*

7. (= Berry's 8.15) *A stream flows through that part of the valley.*

6 could be made imperative as in 8, could be embedded under a verb of ordering or promising as in 9 and 10, and can take the phrase *for my sake* as in 11:

8.   *Swim to the island, Peter.*

9.   *John ordered Peter to swim to the island.*

10. *Peter promised to swim to the island.*

11. *Peter swam to the island for my sake.*

On the other hand, none of these criteria is applicable to 7:

12. *Flow through that part of the valley, stream.*

13. *John ordered a stream to flow through that part of the valley.*

14. *A stream promised to flow through that part of the valley.*

15. *A stream flowed through that part of the valley for my sake.*

These criteria make it clear (Dik 1989: 96-7) that the above [action, intention] clauses are [+dynamic, +control] and so correspond to Actions in FG, while [action, supervention] and [event] clauses are [+dynamic, -control] and so correspond to FG Processes. There is, however, a complication in that some of the SoAs classified by Dik (1989: 99) as Positions (eg. waiting for someone) would presumably also qualify as intentional actions in a SFG account.

Note also that verbal processes, treated by Halliday (1985: 129-30) as a subsidiary class, are a subtype of Action in FG, since they are clearly [+control]. They differ from material processes, however, in that they (like mental processes – see below) can take as their second participant a fact, usually expressed as a *that*-clause:

16. *John said a few words/ that he was ill.*

The relationship between the mental processes of SFG and the FG typology of SoAs has been discussed in some detail by Goossens (1990). As he observes, Dik (1989: 98-9) claims that Experiences, which are the equivalent of mental processes in SFG, should not be regarded as a separate type of SoA in their own right. Dik's reasons for this are firstly that all the major SoA types can occur in versions involving experience (perception, feeling, wanting, etc.), and secondly that no special coding devices, in the shape of special cases or adpositions, are found

to mark Experiencer arguments. However, as Goossens also points out, Halliday (1985: 106-11) has provided convincing evidence that mental processes do indeed have properties which mark them off from material processes. These properties are summarised below:

(i)   the 'first participant' (= A¹ in FG) must be human(-like)

(ii)   the second participant (= A²) can be a **thing** or a **fact** (the latter usually expressed by a *that-* clause)

(iii)   the unmarked form of the present tense is the simple (non-progressive)

(iv)   many, though by no means all, are '2-way' (eg. *Mary liked the gift/ The gift pleased Mary*).

The first three properties are illustrated by the following examples:

17. *John/ *the stone knew/saw the book*

18. *John knew/saw that Mary had arrived*

19. *John knows/*is knowing that Mary has arrived*

I would therefore agree with Goossens (1990: 174) that "the combined evidence appears to mark off a class which stands out fairly clearly in the taxonomy of Processes in SG", and also that mental processes are those [+experiential] SoAs in which the 'sensing' or experiential dimension is most salient. I concur, then, with Goossens' (1990: 176) proposal that Experience should be reinstated as a SoA type in those cases where the first argument is fully determined by the property [+cognizant] (or [+experiential], rather than being simply a first argument of another kind, to which the feature is added. The following examples of this latter, incidentally experiential kind are quoted by Goossens from Dik (1989):

20. (= Goossens' 6) *John* (Processed/Experiencer) *dreamed about his former teacher.*

21. (= Goossens' 7) *John* (Processed/Experiencer) *got an interesting idea.*

Note that 20 and similar examples are treated by Halliday (1985: 128-9) as involving behavioural processes, a further minor type which consists of "processes of physiological and psychological behaviour, like breathing, dreaming, smiling, coughing". They are like mental processes in that they typically have an animate first participant, but the process is nevertheless "more like one of 'doing'". This is true of smiling and coughing, and maybe for breathing in at least one of its senses, but is perhaps less appropriate for dreaming (as indicated by the FG analysis of 20). Furthermore, note that *dream*, unlike the others, can easily take a *that-*clause as second participant. A reasonable solution might therefore be to assimilate dreaming to mental processes, but to

treat coughing, smiling, thinking about something, etc. as a subclass of material processes characterised by their normally obligatory animate first participant (see also Hasan 1987: 186).

A further problem arises with processes of believing. Dik (1989: 98) considers these to be [+experiential] Positions. However, I would agree with Goossens (1990: 175) that beliefs are not typically [+control], so that they should be regarded as experiential States rather than Positions. For instance, although we do sometimes find *believe* used imperatively, the following seem odd:

22. *?John promised to believe the story.*

23. *?John believed the story for my sake.*

If convincing arguments can be found for Dik's original analysis, then the equation of mental processes with Experiential States in Figure 3 would have to be replaced by an equation with Experiential Situations.

Relational processes are defined by Halliday (1985: 112) as processes of being: "The central meaning of clauses of this type is that something is". As we have seen, there is a major difference in approach, in this area, between SFG and FG, in that for SFG *be* as a main verb always represents a process, whereas the standard treatment in FG is to introduce *be* by means of expression rules.

The SFG treatment of relational processes, both in *IFG* and in recent work by Fawcett (1987), is extremely detailed, and I shall give only a very brief summary of the principal distinctions here. Initially, I shall compare FG only with Halliday's account; Fawcett's work will be considered later.

In *IFG*, relational processes are subclassified along two dimensions. Firstly, they may be attributive or identifying. Examples of attributive relational processes are given in 24-26, and examples of identifying processes in 27-29, all being taken from Table 5(4) of *IFG* (Halliday 1985: 113):

24. *Sarah is wise.*

25. *The fair is on a Tuesday.*

26. *Peter has a piano.*

27. *Tom is the leader; the leader is Tom.*

28. *Tomorrow is the 10th; the 10th is tomorrow.*

29. *The piano is Peter's; Peter's is the piano.*

The second dimension involves a three-way classification into intensive ('x is a'), circumstantial ('x is at a') and possessive

('x has a'). This dimension cross-cuts the first: 24 and 27 are intensive, 25 and 28 circumstantial, and 26 and 29 possessive.

Goossens (1990) examines in some detail the relationships between SFG and FG in this area, and his proposals seem to me to be entirely reasonable. He argues that, contrary to what has been assumed in FG so far, the lexicon does need to contain an entry for *be* in its existential use, where the presentative-existential *there* construction is not used, as in 30:

30. (= Goossens' 37)   *I think, therefore I am.*

For all other uses of *be* copula support can operate. Where *be* can be paraphrased as *behave*, as in 31, Goossens proposes a mixed Zero-Agent argument:

31. (= Goossens' 33)   *Be nice to the man.*

32. (= Goossens' 35)   IMP   nice$_A$ $(d1x_2:nurse_N(x_j))_{\phi Ag}$
                        $(d1x_2:man(x_2))_{Rec}$

For copula verbs other than *be* (eg. *become, remain, seem*), which would also be relational in SFG terms, Goossens argues that neither copula support nor treatment as independent predicates is an adequate solution. Copula support is insufficient because the verbs clearly add meaning to the clause; but they do not represent independent predicates because they still need to combine with a non-verbal predicate, with its own arguments and selection restrictions (eg. *king* in 33):

33. (= Goossens' 46)   *Paul became king.*

Goossens proposes that copulas of the type exemplified by *become* and *remain* should be dealt with in terms of a predicate formation rule. *Seem, appear, look, sound, feel* require a different predicate formation rule, since they can have an optional non-nuclear Experiencer, as in 34:

34. (= Goossens' 52)   *John looks happy (to me).*

Where *seem* or *appear* take an infinitive complement as in 35, Goossens proposes that it represents an independent predicate with an embedded predication as its nuclear argument:

35. (= Goossens' 54)   *John seems to be sad/ a creep/ the boss.*

A possible alternative analysis of items such as *seem, appear* could be based on the fact that the meanings expressed by these verbs are basically evidential, and so are closely related to the area of modality. It might therefore be worth considering whether they could be integrated into a unified account of modality and evidentiality (for some FG proposals in this area, see Hengeveld (1988), and for reaction to these, Nuyts (1990)).

Possessive relational verbs in SFG are treated as independent predicates by Goossens, with the possible exception of *have*,

which could perhaps be dealt with in terms of a rule of *have*-support parallel to that for *be*. Goossens does not discuss circumstantial relationals in any detail, but it is clear that verbs such as *accompany*, which fall into this class for Halliday, would be treated as representing separate predicates in FG. They are, however, [+control] and so should be classified as Positions, whereas the other relationals we have examined are States.

Halliday's final class of processes, seen as a minor one, is the existential type exemplified in 36:

36. *There was a cat in the room.*

These should probably be seen as a subclass of relational processes. The standard treatment of such processes in FG is that of Hannay (1985), and will not be discussed further here.

So far, I have concentrated on the typology of processes/SoAs themselves. Similarities and differences in process/SoA type are associated with parallels and dissimilarities in the semantic functions assigned to entities. SFG has a rather larger array of semantic functions than FG, and because of the differences in the treatment of relational processes, some of these do not have any near-equivalent in Dik's account. It is therefore easier to start from the FG functions in comparing the two approaches. Figure 5 shows how the FG semantic functions map on to those proposed by Halliday (1985).

Before I discuss these mappings, a few words about the labels 'transitive' and 'ergative' in Figure 5 are necessary. Halliday (1985: 144 ff.) shows that relationships between processes and their participants can be viewed in two complementary ways. Consider material processes such as those in 37 and 38:

37. *The cat ran.*

38. *The dog chased the cat.*

In 37, the action of running is confined to the Actor (the cat), and does not extend to any other participant. In 38, however, the action of chasing on the part of the Actor (the dog) extends to a second participant, the cat, labelled Goal. 38 is transitive (in a semantic as well as a syntactic sense of the term), while 37 is intransitive. In a mental process we see the idea of extension once more, but this time the details of the relationship are different. In 39, the process of liking extends to the book, but Bill is not doing anything to the book by liking it, so that the functions Actor and Goal are no longer appropriate: rather, in Halliday's terms, we have a Senser (Bill) and a Phenomenon (the book):

39. *Bill liked the book.*

FG semantic function	Type of SoA	SFG transitivity type	SFG roles trans. erg.
Agent	Action	Material	Actor Agent/ Medium
Positioner	Position	Material Relational	Actor Medium Carrier Medium
Force	Process	Material	Actor Agent
Processed	Process	Material Behavioural	Actor Medium Behaver Medium
Zero	State	Relational Mental	Carrier Medium Identi- Medium fier or or Agent Identi- fied Senser Medium
Goal	Action, Position or Process	Material Mental	Goal Medium Senser Medium
Recipient	Action or Position	Material or Relational	Beneficiary/ Recipient
Location	Action, Position or State		Location/spatial rest
Direction	Action or Process		Location/spatial towards
Source	Action or Process		Location/spatial motion/away from
Reference	Action State	Material Relational	Range Identified or Identifier

Figure 5: Semantic functions and participant/circumstance roles

Similarly, relational processes require different semantic functions, some of which are exemplified below:

40.   Tom   is   a teacher.
      Carrier   Attribute

41.   Tom   is   the chairman.   (with   intonational
                                        prominence   on   *the
                                        chairman*)

      Identified/   Identifier/
      Token   Value

And there are yet more functions for the minor types of process: Behaver and Behaviour for behavioural processes; Sayer, Receiver

and Verbiage for verbal processes; Existent for existential processes.

As Halliday observes, however, an alternative and complementary view allows us to see parallels among these various apparently disparate types. The basic distinction in this second approach is concerned with causation rather than with extension, the fundamental issue being whether the process is brought about by some external entity. If we look again at 37 and 38 in this light, we see that whereas in 37 no external agency is involved, in 38 the cat's movements are caused by the external agency of the dog. In both, the cat can be seen as the central participant, the one affected by the process, and Halliday labels this function Medium; but in 38, we also have an Agent. The interpretation based on causation is the 'ergative' pattern referred to in Figure 5.

The ergative interpretation can now be extended to other types of process. In all types there is one participant that is central to the process, and so is interpretable as the Medium: in mental processes it is the Senser, in attributive relational processes the Carrier, in identifying relational processes the Value. In all cases there can also be an Agent causing the process: in a mental process of the *please* type, as in 42, it is the Phenomenon:

42. *The book pleased Bill.*

and we can also add an Agent to certain kinds of relational process, as in 43:

43. *The cold turned the liquid cloudy.*

where *turned* can be interpreted as 'caused to become'. These and other types are discussed in more detail in Halliday (1985).

We can now turn to the comparison of these semantic functions with those of FG, starting with the nuclear functions in first position. Dik's Agent, occurring in Action processes, is clearly equivalent to the Actor of Halliday's transitive analysis of material processes, and so to the Agent in an ergative interpretation of a causative process, and to the Medium of a non-causative process.

Positioner has no single correlate in SFG, because Positions correspond to certain types of both material and relational process, as discussed earlier (and even, according to Dik, mental processes of belief, though this analysis, as we have seen, is somewhat dubious).

The Force function of FG has no parallel in SFG. As Dik (1989: 101) points out, however, Forces do not behave like Agents: they occur in [-control] SoAs, as shown by evidence such as the following:

44. *Bill ordered John/*the earthquake to move the rock.*

36

45. *John/*the earthquake promised to move the rock.*

46. *John/*the earthquake moved the rock for my sake.*

There are therefore good arguments for recognising Force as a separate semantic function in SFG too.

The Processed function of FG, corresponding to the entity undergoing the process, would be the Actor/Medium of a material process in SFG in cases such as 47 and 48, taken from Dik (1989: 97):

47. (= Dik's 31e)   *The apple fell from the tree.*

48. (= Dik's 31f)   *The clock was ticking.*

Where the Process is an experiential one, however, we may have a Behaver, as in 49:

49. (= Dik's 34f)   *John dreamed about his girl friend.*

though other SoAs classified as experiential Processes by Dik, such as that in 50, are treated by Halliday (1985: 122) as material:

50. (= Dik's 34e)   *John got an interesting idea.*

The Zero semantic function assigned to the entity in some State corresponds to several different functions in SFG, according to whether the process is relational or mental, and if relational, according to whether it is attributive or identifying. In 51 we have an attributive relational process with a Carrier and a circumstantial Attribute:

51. (= Dik's 31b)   *John's money is in an old sock.*

In 52, the Zero element in an FG analysis corresponds to Identified/Token, and in 53, to Identifier/Token, both with the intonational prominence on *the fat one*:

52. *John is the **fat one**.*

53. ***The fat one** is John.*

In 54, Zero corresponds to Senser:

54. (= Dik's 34b)   *John did not know the story.*

We see, then, that there is a rather complex relationship between the FG semantic functions at A^1 position and those postulated in SFG. For the A^2/A^3 functions of FG, shown below the double line in Figure 5, the correspondences are a little more straightforward.

Goal is defined by Dik (1989: 103) as "the entity affected or effected by the operation of some controller (Agent/Positioner)

or Force". It is therefore clearly parallel to the SFG Goal function in material process clauses. However, those cases in which Dik recognises a Goal with Experiencer function, such as 55, are treated by Halliday (1985: 110) as mental processes, with Senser as the equivalent semantic function:

55. (= Dik's 45b)   *John scared Mary.*

Recipients in FG are equivalent to the Recipient subtype of Beneficiary in SFG. Location, Direction and Source have straightforward parallels in subtypes of Halliday's Location function as shown in Figure 5. The two examples of Reference given by Dik (56 and 57 below) are handled differently by Halliday: in 56, the process is relational/identifying, while in 57 we have a material process with the added semantic function Range (*mathematics*), which "specifies the range or scope of the process" (Halliday 1985: 134):

56. (= Dik's 49b)   *The boy resembles his father.*

57. (= Dik's 50e)   *John taught the children mathematics.*

I wish to turn now to two specific areas where I believe FG could benefit from a closer look at Halliday's account of transitivity. The first concerns Dik's treatment of pairs such as:

58. (= Dik's 51a)   *John* (Ag) *moved the rock* (Go).

59. (= Dik's 51b)   *The rock* (Proc) *moved.*

Dik gives three reasons for claiming that *the rock* has a different semantic function in the two cases. Firstly, he states that

> ... semantically, the status of "the rock" does not appear to be the same in the two constructions: in (51a) it is said to be subjected to some outside operation; in (51b), no such outside operation is involved. (Dik 1989: 105)

However, as pointed out by Mackenzie (1981: 307) in relation to the similar account of the Goal function in the original account of FG (Dik 1978), entities such as the rock in 58 and 59 do indeed have the same semantic status, in the sense that they represent the central participant which undergoes the movement. This, of course, is precisely what is captured in Halliday's ergative analysis of these and similar clauses, in which *the rock* would be assigned Medium function, and *John* acts as Agent. Dik's second reason for distinguishing the roles assigned to *the rock* in 58 and 59 is that

> ... our usage of Goal allows for a more specific definition of this function, ... (Dik 1989: 105)

There is, however, no indication of why the particular kind of specificity evidenced in Dik's definition of Goal (see above) is

required, or even desirable, in the grammar. This leaves Dik's third reason:

> ... we shall use Goal and other semantic functions in our account of Subject and Object assignment. And these assignments require us to distinguish between the functions of *the rock* in (51a-b). (Dik 1989: 105)

But as Mackenzie observes:

> In other words, the motivation for the *semantic* function Goal is that it facilitates the specification of *syntactic* regularities, an assertion which undermines the autonomy of the levels of semantic functions and syntactic functions in an undesirable manner. (Mackenzie 1981: 307)

It would seem advisable to re-examine the rules for Subject/Object assignment, rather than force a semantic analysis which ignores important regularities.

A second area where I perceive some lack of clarity in the FG account, and where I think closer attention to SFG could be beneficial, is concerned with the status of features such as [+/-dynamic], [+/-control], [+/-telic], etc. These are said to be "parameters for a semantic typology of SoAs" (Dik 1989: 90), but are not present in underlying representations, in which only the semantic functions associated with the various SoA types are found. Furthermore, this is the only place in *TFG1* where features, as such, are used. One is led to wonder, then, if they are merely an *ad hoc* device, and could be dispensed with. On closer inspection, however, it turns out that they are indeed necessary in order to achieve significant generalisations. Without them, there is no way of showing, for example, that Positions are like Actions in one respect (they are both [+control]), and that similarly Processes are like States in being [-control]. These similarities cannot be shown in terms of semantic functions, since no functions are necessarily shared by the relevant pairs. As the diagrams on p98 on *TFG1* clearly demonstrate, the semantic features form patterns of contrast and dependency which are very easily translated into a system network in SFG terms (see Figure 6, in which the [+/-experiential] contrast has been added to Dik's primary distinctions). Such considerations add weight to the arguments already adduced in §3.1 for the incorporation of an explicit paradigmatic component into FG. Note that [+/-telic] is different from the other features in that although it distinguishes between Accomplishment and Activity, and between Change and Dynamism, it does not serve to differentiate any semantic roles, and so does not act as the basis for any differences in the underlying semantic representation of clauses. This is probably just as well, since the telicity of SoAs can vary with such factors as aspect, and many predicates can be interpreted as either [+telic] or [-telic] in different SoAs, as shown in 60-63 (see de Groot 1985, Hengeveld 1989: 135 for further discussion):
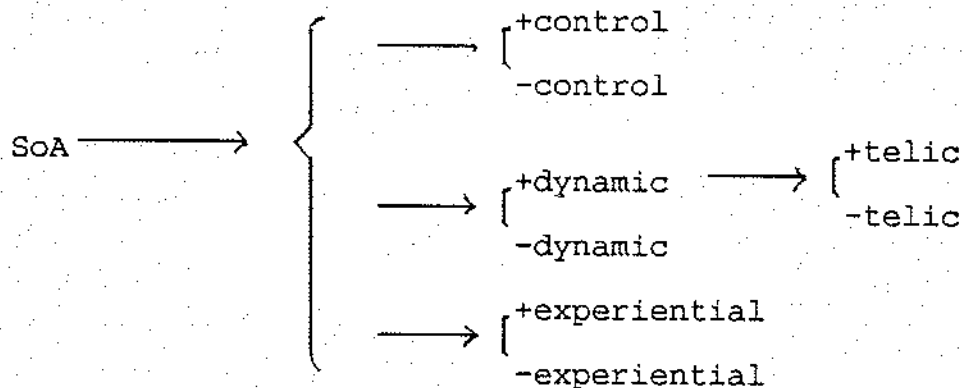
Figure 6: A system network for States of Affairs

60. *The towel dried in an hour.* ([+telic])

61. *The towel dried for an hour.* ([-telic])

62. *The towel dried.* ([+/- telic])

63. *The towel was drying.* ([-telic])

Finally, in this all too sketchy review of process types/SoA typology, a few words should be said about an account of transitivity by Fawcett (1980, 1987) which, although it retains many of the insights of Halliday's work, differs from the *IFG* account in significant ways. Firstly, the 'inherent roles' which correspond to the 'functions' or 'participant roles' of Halliday's grammar, and to the semantic functions of FG, are regarded as roles which are assigned by the semantic features of system networks, not to linguistic elements directly, but to elements of what Fawcett calls the 'referent situation', which is pre-linguistic (Fawcett 1980: 136). The roles themselves are used as feature labels in networks (see eg. 1980: 137, 1987: 161), so avoiding the sometimes rather opaque labels for subclasses of process in Halliday's networks. This reflects the primacy accorded to roles in Fawcett's grammar: formal tests are given (1980: 142, 1987: 142) for roles rather than for process types as such, "because the latter and (in part) defined in terms of configurations of the former, rather than vice versa" (1987: 141). This clearly contrasts with the approach of both Halliday and Dik. It may be useful at this point to summarise the relationships between process/SoA type, semantic functions/roles and features, in the three grammars:

Dik: **semantic features** define **SoA types** with which are associated configurations of **semantic functions**

Halliday: **process types** constituting **features in networks** are associated with particular configurations of **functions/ participant roles**

40

Fawcett: **Configurations** of **inherent semantic roles** which appear
as **features in networks** define **process types**

As far as the substantive details are concerned, an important
difference between the accounts of Fawcett and Halliday is in the
treatment of relational processes. Fawcett (1980: 137, 1987:
140) elevates locational processes in English, which for Halliday
are just one kind of circumstantial process, to a primary
category, basically on the grounds of frequency. He also
abolishes Halliday's distinction between attributive and
identifying types of relational process, arguing for a position
in which he can "treat identifying processes simply as involving
Attributes consisting of a one-member class" (1987: 139).
Fawcett analyses as relational certain transfer processes such
as *give* and *sell* (1987: 130-31, 143 ff.), which are interpreted
as 'causing to have/lack', and processes of movement (1980: 138-
9, 1987: 155 ff.) such as *go*, *come*, *get* in 64 and *send*, *take*,
bring in 65, interpreted as 'causing (oneself or
someone/something else) to be (located)':

64. (= 32/33a in Fawcett 1987: 155)   *Ivy   went/came/got   to
                                        Peru.*

65. (= 34a in Fawcett 1987: 155)   *Ike   sent/took/brought
                                        Ivy to Peru.*

These analyses are made possible by the recognition of 'compound
roles' for certain participants. For instance, in 65, *Ivy* is
analysed as a Carrier (the central role around which all
relational processes are based, and which *Ivy* would have in *Ivy
is in Peru*) in relation to her location, but also as an Affected
(Fawcett's equivalent of Halliday's Medium) in relation to the
action initiated by *Ike* as Agent. The idea that certain types
of relationship between processes can be accounted for by the
addition of an Agent is already adumbrated, though not fully
developed, in *IFG*, where Halliday (1985: 152 ff.) analyses a
number of pairs in these terms, including the following:

66. *the bomb exploded*   *the police exploded the bomb*
                                  (material)
67. *Mary believed that ...*   *the report convinced Mary that*
                                  ... (mental)
68. *the bananas were ripe*   *the sun ripened the bananas*
                                  (relational)
69. *it is (the case) that ..*   *this proves that ... (relational)*
70. *it seems that ...*   *this suggests that ... (relational)*

There is no suggestion, however, that examples such as 64 and 65
would be analysed in a similar way. Halliday would presumably
still regard them as material, and this analysis is, of course,
supported by the fact that the unmarked aspect in the present
tense in such cases is progressive. Note, however, that this is
also true of the +Agent version of 68, thus presenting a problem
for the analysis of this process as relational.

Note that the FG analysis of these examples resembles Halliday's account rather more closely than it does Fawcett's. 64 and 65, like 66, are clearly Accomplishments, while 67 and 68, at least, are Changes. In terms of the Hallidayan analysis, then, we have Accomplishment as equivalent to material, Change as equivalent to mental and relational. On the other hand, under Fawcett's analysis, the FG Accomplishments correspond to material processes in the case of examples like 66, but to relational ones in 64 and 65.

5.   *The layering hypothesis*

In my view, one of the most significant recent advances in FG is the layering hypothesis advanced originally by Hengeveld (1987, 1988, 1989) and incorporated by Dik into the version of FG presented in *TFG1*. Hengeveld's claim is that in order to explain a number of linguistic phenomena in FG terms we need to recognise an analysis of the clause at two levels: the 'representational' and the 'interpersonal'. He explains the role of these layers as follows:

> At the representational level a SoA is described in such a way that the addressee is able to understand what real or hypothesized situation is referred to. At the interpersonal level this situation is presented in such a way that the addressee is able to recognize the communicative intention of the speaker. Thus the representational level is concerned with the narrated event, the interpersonal level with the speech event ... (Hengeveld 1989: 128)

In making this claim, Hengeveld makes clear his debt, not only to Bühler (1934) and to Foley and van Valin (1984), but also to Halliday. The term 'interpersonal' is clearly taken from SFG, and Halliday's ideational metafunction corresponds quite closely to Hengeveld's representational layer. Furthermore, the thematic and information distribution networks in Halliday's textual metafunction find a parallel in the pragmatic functions of FG.

Within the representational layer, Hengeveld and Dik recognise the level of predicates and terms (Level 1), and the level of the predication (Level 2). Within the interpersonal layer we have the level of the proposition (ie. the level at which the predication represents the content of a speech act - Level 3) and the illocutionary level of the clause (Level 4). The details of these proposals are by now well known within FG, and I shall not pursue them here. It is clear, however, from the work of Hengeveld cited above, and from more recent studies (see eg. Hengeveld 1990; Dik, Hengeveld, Vester and Vet 1990; Dik and Hengeveld 1990), that the hypothesis has considerable explanatory power. Here, I shall concentrate on the relationship between the layers of the FG model and the metafunctions of SFG.

It is interesting to note that the division of the interpersonal layer into propositional and illocutionary levels corresponds to

a division of Halliday's interpersonal metafunction proposed by Fawcett (1980: 26 ff.) into an 'interactional' function (parallel to the illocutionary level of FG) and 'affective' and 'modality' functions (encompassing the phenomena at the propositional level in FG).

A second noteworthy detail is that the ordering found within the multiple themes postulated in SFG (see §4) reflects the ordering of the layers in FG, in that interpersonal themes are normally found before ideational ones.

Despite the clear relatedness of the FG and SFG ideas, there are some significant differences of approach. Firstly, Hengeveld (1990) suggests that the interpersonal layer is concerned with the utterance containing the predication, rather than with the predication itself. Within the context of FG as currently conceived this makes sense, but Halliday would want to express the distinction in a rather different way: rather than contrasting the utterance with the predication, he would want to point to the difference between the ideational content of the utterance and the **interactional** importance of the utterance **within the discourse**.

A second difference is concerned with the placing of Subject and Object assignment. Dik (1989: 58) sees this as occurring at Level 2 – ie. within the representational layer – not only on the grounds that it is concerned with presentation of the SoA, which is complete at the end of Level 2, but also because empirical studies show that constituents introduced at higher levels lie outside the scope of the Subject/Object assignment mechanism. For Halliday, however, the **introduction** of the Subject is a matter of mood, which falls within the interpersonal metafunction, and the Object (a kind of Complement in SFG) is also seen as part of an interpersonal layer. On the other hand, the mapping of Subject and Object on to other functional roles by means of the systems of Voice is a matter of textual arrangement, though it is clearly also related to the ideational through the transitivity options.

The differences outlined above are perhaps fairly minor. There is, however, one very major way in which the proposals of FG and SFG diverge. A crucial point about the layers of the FG model is that operators and satellites at one level are claimed to take those at lower levels into their scope. Translated into the 'choice' terms of SFG , this means that we should be able to find constraints imposed by choices in mood on choices in, for example, tense, quantificational aspect, or certain types of modality, but not *vice versa*, and that these latter choices should be potentially able to constrain choices in the areas of imperfective/perfective and phasal aspect and predicate negation, but again not *vice versa*. More generally, interpersonal choices should be able to constrain ideational ones, but not *vice versa*. Such claims are clearly incompatible with Halliday's claim that the three metafunctions represent **parallel** kinds of patterning, and in particular with the original 'internal' evidence for metafunctional organisation in terms of the relative independence

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of choices in the different metafunctions. If a growing body of evidence supports the FG layering proposals, it will at the same time weaken the general position taken on metafunctional organisation in SFG. The evidence already available suggests that there are indeed crucial links between networks assigned to different metafunctions in SFG. To give just one example, the choice of [imperative] from the mood system (corresponding to the IMP operator of Dik (1989: 256) or to an imperative illocutionary frame in Hengeveld (1989: 129)) means that no modalisation is possible (at Levels 2 or 3 in FG terms), that the choices in tense/aspect (at Levels 1 and 2 in FG) are very restricted, and that the main verb must represent an action (at Level 1 of FG).

Finally, we should note that the three stages of predicational elaboration (nuclear, core and extended) which are involved in Levels 1 and 2 of the FG model do not correspond to any clear-cut structures in SFG. The nuclear predication relates to a partial SFG structure with just participants from the transitivity choices and a specification of nominal groups; the core predication embraces this plus circumstances of Manner, Speed and Instrument, and aspect choices; and the extended predication builds in the full transitivity information plus tense and polarity choices. The propositional layer of FG does correspond to the addition of Halliday's modality choices which, in FG terms, are purely subjective.[2] The clause level of FG has additional information from Halliday's speech function/mood networks.

7.   Concluding remarks

In this paper, I have tried to demonstrate two general points: firstly, that FG and SFG share enough basic philosophical and methodological assumptions to make a comparison of the two approaches worthwhile; but secondly, that there are some fundamental differences, both of approach and of implementation. Particularly important, in my view, are: the greater willingness of systemicists to get their hands-dirty in handling the messier pragmatic and discoursal aspects of language; the related emphasis of SFG on texts, contrasted with the slow emergence of work on text in FG; the paradigmatic orientation of SFG, opposed to the essentially syntagmatic bias of FG which allies it rather to 'formal' as well as to some other functional grammars; and the greater concern in FG for matters of psychological and typological adequacy.

I hope to have shown, however, that adherents to each theory could profit by serious examination of what the other approach could afford. It is my belief, and my sincere hope, that the 1990s will be characterised by an ever-growing realisation of the importance of functional explanations in linguistics, but also by a greater openness, not only between 'functionalists' and

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[2]Halliday does make a distinction between subjective and objective modality, but it is not the same as that made in FG.

'formalists', but also between proponents of different functionally-oriented theories. It is in this spirit that the present paper is offered.

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