Chapter 1

Functionalist approaches to language

1.1 Introduction

The aim of this first chapter is to explore what is meant by a functionalist approach to language, in order to be able to narrow down the focus of this study to a small set of approaches which we may characterise as 'structural-functional grammars'.

Given the dominance of 'formalist' approaches to language in the decades after the publication of Chomsky's *Syntactic Structures* (1957) and *Aspects of the Theory of Syntax* (1965), 'functionalists' have often characterised their positions in relation to 'formalist' claims. Although I shall not continue to use scare quotes around the terms 'formal(ist)' and 'functional(ist)', the reader is urged to treat these terms with some reserve until some of the preliminary ground has been cleared. As we shall see, although the distinction is indeed grounded in fundamental differences of approach, it is, like most dichotomies in linguistics, over-simple and potentially misleading. Furthermore, the terms themselves are in need of some clarification.

As the primary aim of the present book is to offer a critical discussion of some key functional approaches to language, seen in relation to each other, I do not claim to offer anything new to the debate between formalists and functionalists. A whole volume has recently been devoted to this debate, from an essentially formalist viewpoint (Newmeyer 1998), by one of the few linguists to have treated the matter in some depth, and it is to be hoped that one or more functionalists will offer a book-length reply in the near future. Clearly, however, some preliminary remarks on these issues are in order. In this chapter, then, I shall discuss, in a preliminary way, some of the properties which differentiate functional approaches to language from formal ones (typified by the theories of Chomsky[1]), and which are explored in much more detail in later chapters of the book. This discussion will reveal that although there are indeed certain characteristics which underlie functionalist approaches, there is, as might be expected, a whole spectrum of approaches within the broad heading of functionalism. Within this diversity, I shall distinguish a set of criteria which will be taken to define 'structural-functional grammars'. This prepares

1. Useful summaries of the philosophical and methodological underpinning of Chomsky's linguistics are available in Salkie (1990) and Cook & Newson (1996).

the ground for Chapter 2, in which six approaches to language are examined against the criteria discussed here, in order to isolate a set of core structural-functional grammars.

1.2 Language as communication

The starting point for functionalists is the view that language is first and foremost an instrument for communication between human beings, and that this fact is central in explaining why languages are as they are. This orientation certainly corresponds to the lay person's view of what language is. Ask any beginner in linguistics, who has not yet been exposed to formal approaches, what a language is, and you are likely to be told that it is something that allows human beings to communicate with one another. Indeed, students are often surprised to learn that the most influential linguist of the second half of the twentieth century claims that:

> Human language is a system for free expression of thought, essentially independent of stimulus control, need-satisfaction or instrumental purpose. (Chomsky 1980:239)

Clearly, the linguistic scholar, like the physical or natural scientist, need not and arguably should not base his or her work on popular views of natural phenomena: however, in this case the popular view is based on very solid foundations, in that most of us spend a considerable proportion of our waking hours using language for the purpose of communicating with our fellow human beings.[2]

In answering his critics on this point, Chomsky (1980:229–230) attacks the claim that the 'essential purpose' of language is communication, by pointing to cases of language use (such as the language-mediated resolution of a problem, an informal conversation of a phatic kind intended only to maintain social contact, or talking to an unresponsive audience) which, he maintains, must be treated as non-communicative if the concept of communication is not to be reduced to the point of vacuity. For a functionalist, however, Chomsky's remarks miss the point that such uses of language are plausibly regarded as parasitic on 'normal' communication. As Dik puts it:

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

Foley & Van Valin make a similar point:

> There may well be instances of verbal behavior which are non-communicative, but this in no way undermines the fundamental functionalist tenet that an understanding of language structure requires an understanding of the functions language can serve, communication being the primary one ... (Foley & Van Valin 1984:9)

2. Van Valin (2000:319), in an introductory article on functional linguistics, makes the similar point that any informal survey of non-linguists regarding the primary function of language would indicate that by far the most usual answer would be that language is used for communication.

Furthermore, as Foley & Van Valin (1984: 8) observe, the functionalist conception of communication is not confined to the narrow sense of conveying propositional information, but encompasses the whole range of speech events which take place in human societies, including the setting up and maintenance of social relations, so that an informal conversation engaged in mainly for the purposes of 'phatic communion' is indeed to be regarded as communicative.

In a similar vein, Nuyts (1992a, 1993a) argues that many of the examples of putatively non-communicative acts cited by Chomsky, including self-talk, are indeed communicative, in the sense that they share with clearly communicative acts the same kinds of basic factors as determinants for the way in which the speaker forms the linguistic acts. Nuyts presents a quite detailed review of the literature on what is meant by 'function' in relation to language, and argues that the main 'role function' of language is indeed communication, while the 'organic functions' common to all linguistic acts are as follows:[3]

i. An informative function: language allows its user to make explicit the SoA[4] relevant in the communicative situation.
ii. An intentional function: language allows its user to pursue intentions with the relevant SoA.
iii. A socializing function: language allows its user to conform to the rules and norms existing with respect to the interpersonal and social relationship with the interaction partner.
iv. A contextualizing function: language allows its user to adapt to the specific characteristics of the setting in which the interaction occurs. (Nuyts 1992a: 60)

Nuyts (1992a: 62–64, 1993a: 226–228) demonstrates that these factors are involved in 'individualistic' language use, such as talking to oneself, just as they are in language acts which are indisputably communicative: the act involves a SoA which is relevant to the situation; the speaker must have some reason for performing the act; the speakers' relationships with themselves influence the way in which they perform acts of self-talk; and the way in which such talk occurs is clearly sensitive to setting, in that one would not, as Nuyts points out, do it in the same way in public as in private.

Furthermore, Nuyts (1992a: 74–75) points out that even if communication is not the sole (or, we might add, even the main) function of language, this would still not invalidate the functionalist enterprise, since it is indisputable that communication is, at least, one of the functions of language, and so we still need to explain how language is organised in such a way as to allow this usage.

3. The term 'organic function' is due to Greenberg (1958), and refers to the activity of a unit – e.g. the function of the eyes is to see. This is opposed to 'activity function', which Nuyts recasts as 'role function', by which he means the function of a system in allowing some entity to perform some task.

4. SoA (State of Affairs): "an aspect of (the interpreted) reality" (Nuyts 1992a: 51) which the speaker wishes to refer to in an utterance.

There are also problems with the opposition between language as a primary means of communication and language as a tool for thought. As Nuyts observes, the two are not in opposition or conflict:

> Language certainly does support thinking, in individualistic language use [...] but also in real communication, to the same degree as communication in itself is an inalienable aspect of human thinking. There is no opposition whatsoever here. (Nuyts 1992a: 64, 1993a: 228)

Dik (1997a: 5) also points out that if, with Chomsky, we assume that language is primarily a means for the individual expression of thought, the fact that there is much in common linguistically across individuals within the same speech community remains unexplained.

1.3 The object of study

If linguistics, under the functionalist view, is seriously concerned to explicate language as communication, then it must take as its object of study the whole complex of multi-levelled patterning which constitutes a language. Furthermore, it must relate that complex of patterns to their use in communicative activities.

The formalist view of a language is very different. For Chomsky, a language is "a set of structural descriptions of sentences, where a full structural description determines (in particular) the sound and meaning of a linguistic expression" (Chomsky 1977: 81). Note that this definition effectively reduces the concept of a language to that of a grammar: indeed, Chomsky (1980: 217ff.) has argued that the concept of a language is too vague and too much influenced by socio-political considerations to be of any use in a rigorous linguistics. Chomsky dismisses not only 'a language' but even 'language' itself as "an obscure and I believe ultimately unimportant notion" (Chomsky 1981: 7), noting that in the study of generative grammar "the focus of attention was shifted from 'language' to 'grammar'". As has been pointed out by a number of functionalists (see e.g. Foley & Van Valin (1984: 4) and Givón (1979: 31)) this shift has the extremely important effect of defining certain aspects of language as lying outside the proper concerns of the linguist. Under the Chomskyan view, linguistics is to be concerned only with syntax, morphology, phonology and those aspects of semantics which can be strictly tied to the structures of sentences. Indeed, Chomsky limits the object of study still further, to a 'universal grammar' (UG), which he describes as "the system of principles, conditions, and rules that are elements or properties of all human languages" and as "the essence of human language" (Chomsky 1976: 29). Under a view in which the communicative functions of language are regarded as paramount, this limitation in formalist approaches is clearly unacceptable.

Chomsky restricts the object of study for linguistics not only to grammar, but to the ideal native speaker's knowledge of that grammar (grammatical competence) as opposed to the use which is made of this knowledge in actual communication (performance) (see Chomsky 1965: 4). In later work, Chomsky (1986: Chapter 2) replaces the competence/performance distinction by that between I-language (the speaker's internal, mental

knowledge of the language system) and E-language (language as actually externalised in acts of communication). I-language is the true object of study for Chomsky; work which studies the actual use of language and relates it to the discourse environment, the social context, or other conditions of use is concerned with E-language, and so outside the scope of linguistic theory. The conceptualisation of the grammar in terms of knowledge is crucial to Chomskyan theory, and Chomsky makes it clear that he is not concerned with knowledge conceived as the practical ability of speakers to speak and understand their language(s), but as "a certain state of the mind/brain, a relatively stable element in transitory mental states once it is attained" (Chomsky 1986: 12).

A functionalist approach, however, given the emphasis on language as communication, must be centrally concerned with the relationship between linguistic patterning and contexts of use, and cannot, therefore, accept the competence/performance or I-language/E-language distinctions as they stand. Some functionalists are willing to recognise that there is a distinction to be made between knowledge of rules and regularities, on the one hand, and the use to which this knowledge is put, on the other. But even for such linguists, the linguistic knowledge involved goes far beyond knowledge of the syntactic, semantic, morphological and phonological rules, to include knowledge of how these rules can be appropriately used in particular types of context. In other words, these functionalists are concerned with the specification of communicative competence, as defined by Hymes (1971/1972). As we shall see later, other functionalists, especially those who work within Systemic Functional Grammar, would go further still, to reject the distinction between knowledge and use, replacing it with the concept of a linguistic potential from which choices are made, in actual communicative events, in accordance with contextual factors.

1.4 Autonomy and functional explanation

At the heart of the debate between formalists and functionalists is the question of whether grammars are autonomous with respect to factors outside them, or rather are to be explained in terms of such external factors. As we shall see, the question as just posed is grossly over-simplified and conceals a number of component issues. In other words, the concepts of autonomy and functional explanation are themselves complex and need careful unpacking.

1.4.1 The complexity of the concept of autonomy

As Croft (1995: 492ff.) has pointed out, the term 'autonomy' and its derivatives cause a great deal of confusion in the literature, since they are used in at least three different ways, which are not always clearly distinguished:

- *Autonomy of syntax*: this is the claim that syntactic phenomena are essentially independent of the conventional semantic, pragmatic and discoursal functions of those phenomena.
- *Autonomy of grammar*: this is concerned with the claim that the grammar of a language, taken in the widest sense to include semantic, pragmatic and discoursal patterns, is essentially independent of external functional factors concerned with the use of language as a communicative tool in social contexts.
- *Autonomy of the linguistic faculty*: this is the claim that linguistic capabilities constitute a 'module' which is essentially independent of other cognitive capabilities.

Croft (1995: 491ff.) also draws a distinction between two aspects of autonomy which cut across the first two senses listed above, so giving scope for further confusion in the debate:

- *Arbitrariness*: in the case of the autonomy of syntax, arbitrariness would mean that syntactic elements or rules could not be derived from semantic and/or discoursal properties, and still predict syntactic behaviour correctly; in the case of the autonomy of grammar, it would mean that the properties of the grammar (in the wide sense) could not be predicted from the communicative and social functions which that grammar serves.
- *Self-containedness*: with respect to the autonomy of syntax, this would mean that the syntactic system of a language would contain elements and rules which interact closely with each other, but not with semantic and/or discoursal properties; with respect to the autonomy of grammar, it would mean that the grammar is largely self-contained with reference to communicative and social factors.

As Croft observes, self-containedness is the stronger of the two types of claim, in that it entails arbitrariness, while the reverse is not the case. Furthermore, various logically possible combinations of claims regarding autonomy are derivable from the above sets of distinctions. It would, for example, be possible to maintain that syntax is both arbitrary and self-contained, arbitrary but not self-contained, or neither arbitrary nor self-contained (Croft 1995: 491).

1.4.2 Autonomy of syntax

Discussion concerning the autonomy of syntax is well illustrated by the debate between Newmeyer and a number of functionalists, in an issue of *Language and Communication* which is devoted to the formalism/functionalism debate. Newmeyer (1991a: 22–24) cites the variety of functions which can be performed by Subject-auxiliary inversion in English. Newmeyer's contention is that "[t]he environments in which the auxiliary construction occur [*sic*] defy a uniform semantic characterization" (p. 23) and that this demonstrates that "there are profound structural generalizations in language that have no synchronic external motivation" (p. 22). Furthermore, Newmeyer seeks to forestall a possible reply by functionalists in terms of unity of some broader discourse function, by claiming that the use of the inversion construction "has a variety of discourse effects" (p. 23), in that it can

be used to signal a number of different speech act types. Furthermore, Newmeyer points out, the various kinds of speech act which can be realised through inversion can also be realised by a variety of other syntactic devices. He concludes:

> … we may conclude from a study of the inverted auxiliary that the principles involved in characterizing constructions formally must be distinguished from those involved in determining the use of particular constructions in discourse. The inverted auxiliary construction is typical in that its properties point to the reality of function-independent structural systems at the heart of language. (Newmeyer 1991a: 24)

Claims such as these, however, are founded on the false assumption that functionalists believe in a direct, one-to-one correlation between form and semantics or discourse function. This is not so, and has never been so. Even a cursory glance at the functionalist literature will in fact show a recognition of the complex relationships between form and semantic, pragmatic and discoursal factors. Newmeyer's purely syntactic analysis was in fact challenged by Lakoff (1991), whose reply sparked off further debate between the two positions.

More recently, Newmeyer (1998) has taken a line which at first sight appears to diminish the distance between formalists and functionalists in this area. He points out (p. 161) that generative linguists have often postulated close relationships between form and meaning, although they have not, in general, claimed a causal relationship from meaning to form. Newmeyer nevertheless maintains his position with regard to the autonomy of syntax, illustrating his argument with analogies from chess and from bodily parts (1998: 161ff.). The rules of chess, he points out, form a system which may be described in its own right, even though the shape of the system may well have been influenced by factors outside the system itself. Similarly, human organs such as the liver have a structure which can be described as a system quite independently of the external influences which impinge on that system. And so it is, he claims, with the syntactic systems of human languages. For him, the important point is "whether one's syntactic competence incorporates such external motivating factors" (1998: 161) – a question which he answers in the negative.

According to Newmeyer, then, syntax is, in Croft's terms, both arbitrary (in that syntactic rules cannot be reduced to semantic and/or discourse pragmatic factors) and self-contained (in that the syntactic system can be described quite independently of semantic and/or discourse pragmatic factors).

As far as functionalists are concerned, Croft distinguishes three types of position, and four types of functionalist model, corresponding to acceptance or rejection of arbitrariness and self-containedness:

a. syntax is arbitrary and self-contained (AUTONOMIST FUNCTIONALISM)
b. syntax is arbitrary, but not self-contained (MIXED FORMAL/FUNCTIONALISM and TYPOLOGICAL FUNCTIONALISM)
c. syntax is not arbitrary or self-contained (EXTREME FUNCTIONALISM)
(Croft 1995: 491)

Those linguists whom Croft dubs 'autonomist functionalists' take essentially the same position with regard to the autonomy of syntax as the formalists:

> . . . autonomist functionalists do argue for a conventional relation between syntactic structure and discourse function, [. . .] In other words, many constraints on the behavior and/or distribution of sentences need not be provided by the syntactic component. Nevertheless, the conventions governing the formation of the syntactic structures themselves are not provided by discourse (or conceptual structure, for that matter). (Croft 1995: 497)

Croft's 'mixed formal/functionalists' are those whose descriptions of grammars mix purely formal and functional categories and features. Croft (1995: 503–504) claims that Head-Driven Phrase Structure Grammar, Construction Grammar and even Chomsky's own more recent grammars are non-autonomous in this respect, so diminishing the difference between functionalism and formalism here. For instance, the theta criterion in the Principles and Parameters model, which constrains syntactic rules, makes reference to theta roles, which are themselves semantic in nature.

'Typological functionalists' also produce mixed descriptions, but these are constrained in the sense that they make a distinction between universal properties of grammars (usually involving implicational hierarchies) which are functional in nature, and language-specific features, which are arbitrary:

> The basic strategy for constructing a typological FA [Functional Analysis – CSB] is to examine a correlation between syntax and semantics (or perhaps discourse function), seek a functional prototype that is found across languages, and construct implicational universals (particularly implicational hierarchies) holding between non-prototypical semantic types and the prototypical ones. The universal hierarchies and prototypes are the crosslinguistic manifestation of particular kinds of relationships among semantic and/or discourse elements in a speaker's mind. These functional elements and relationships partake in the grammatical knowledge of an individual. Hence the grammatical system is mixed, but the mixture is of a specific type: it is made up of functionally defined universal elements and relations as well as arbitrary language-specific elements and relations. (Croft 1995: 505)

Finally, Croft's 'extreme functionalists' reject both the arbitrariness and the self-containedness of syntax. In Croft's view, no linguists hold this position today, as all agree that there is at least some arbitrariness in the syntax of every language.

1.4.3 Autonomy of grammar

Croft (1995: 491) is careful to point out that semantic and discourse-pragmatic properties fall within the overall semiotic system of language (i.e. within 'the grammar', in its wide interpretation), so that the autonomy of syntax debate we were concerned with above is essentially internal to that semiotic system. A second question, however, and one which has taken centre stage in the formalist/functionalist debate, is whether the semiotic system of a language (its 'grammar') is autonomous with respect to factors which are external to

that system. Again, as we have seen, the question of autonomy can be broken down into sub-questions of arbitrariness and self-containedness.

The standard formalist position is that the grammar is indeed autonomous (both arbitrary and self-contained) with respect to external factors. Chomsky (1976:56) makes it clear that he accepts that "there are significant connections between structure and function: this is not and has never been in doubt". But while recognising the value of demonstrating correlations between structure and function, he rejects the possibility of explaining grammatical structure in functional terms:

> Where it can be shown that structures serve a particular function, that is a valuable discovery. To account for or somehow explain the structure of UG [Universal Grammar – CSB], or of particular grammars, on the basis of functional considerations is a pretty hopeless prospect, I would think; . . . (Chomsky 1976:58)

Newmeyer, likewise, readily recognises that external factors have shaped linguistic systems:

> More often than most formalists have been willing to accept, external factors based in communicative efficacy helped to steer grammar in the course of language evolution. Functionalists, then, have been right in stressing the interest and importance of identifying the external factors that have led grammar to take its present shape and form. (Newmeyer 1991a:26)

He too, however, maintains the position that synchronically, linguistic systems are autonomous with respect to these external influences.[5] As Croft (1995:511) observes, however, the scope of Chomsky's Universal Grammar is limited: UG is not intended as a complete theory of grammar, let alone of language. The autonomy claim is therefore to be seen only in relation to this limited scope: the principles of UG are claimed to be unaffected by external influences, and once the values of parameters have been set, these too are unaffected. This debate will be taken up again later, when functionalist positions on the issue have been examined.

In terms of Croft's sub-dimensions of arbitrariness and self-containedness, there are three logical positions which could be taken on the issue of the autonomy of the grammar, one of which is, he claims, not attested, in that no linguist would claim that the grammar can be wholly derived from external motivating factors:

a. grammar is arbitrary and self-contained (CONTEMPORARY FORMALISM and EXTERNAL FUNCTIONALISM)
b. grammar is arbitrary, but not self-contained (INTEGRATIVE FUNCTIONALISM)
c. grammar is not arbitrary or self-contained (not attested). (Croft 1995:492)

'External functionalism' is the position in which UG or certain aspects of it may come under attack, but the autonomy of the linguistic system is not denied. 'Integrative functionalists', on the other hand, deny the self-containedness, and hence the autonomy, of the

5. Newmeyer (1998:104) has pointed out that innateness, which is so central to Chomsky's theorising, can be regarded as an external explanatory factor. For further discussion see Newmeyer (1998, Chapter 2, §5), also §1.6 in the present chapter.

semiotic system of language: although they accept that this system is at least partially arbitrary, they consider that it is too intimately bound up with its external motivating factors for it to be possible to describe it insightfully without reference to those factors. The relationship between functional factors and linguistic features is not, however, by any means one-to-one, but displays considerable complexity:

> . . . any non-simplistic view of the notion "functional explanation" will not be committed to the view that linguistic form is a direct reflection of extragrammatical principles.
>
> A non-simplistic view of "functional explanation" will hold, rather, that the organization of a natural language is a solution to a complex problem, the "solution space" of which is circumscribed by a variety of interacting and counteracting functionally motivated principles. A natural language, then, can be seen as one of a set of possible solutions to a complex problem: the achievement of inter-human communication. (Dik 1986: 18)

> . . . while in the main all biological design evolves under adaptive – functional – pressures, a simple isomorphism between structures and functions is not always transparent in complex, interactive biological systems. The existence of some measure of arbitrariness in the grammatical code is thus to be expected. (Givón 1995: 11)

> [Functionalism] perfectly allows for the possibility that features of language are non-functional, or functionally inadequate [. . .] Such features should even be expected, for at least two reasons: First, because structures unavoidably have their own inherent properties and once created (for some purpose) start to live a life of their own. Second, because language is a functionally complex system (communication is a multifaceted activity) and the many interacting dimensions are not always mutually compatible in terms of the requirements they impose on structure. (Nuyts 2001a: 4)

In stressing the multiplicity and complexity of these external factors, functional linguists are taking very much the same line as those who study an ecosystem in biology:

> One cannot understand the features of a biological or a cultural system without understanding the systems with which they interact, and their function in terms of the operation of the entire organism of which they are part. The interaction of grammar with semantic, cognitive, pragmatic, developmental, and perceptual systems is no different. (Thompson 1991: 94)

I shall return later to parallels between linguistics and biology, as they affect the formalism/functionalism debate.

1.5 The nature of functional explanations

The discussion so far has appealed to the notion of 'functional explanations', but with only rather general characterisation of what such explanations might involve. In view of the centrality of this concept to the functionalist enterprise, a rather more detailed anal-

ysis of it than I have attempted so far is needed. As a framework for the discussion which follows, I shall take two detailed treatments of functional explanation, one from the functionalist Dik (1986), the other from the formalist Newmeyer (1998), who deals with the various motivating factors he claims have been put forward by functionalists, as a prelude to his own arguments about which of these factors he finds convincing as possible explanations.

First, we must ask just what is meant by 'explanation' in the current context. Newmeyer distinguishes between two types of explanation, internal and external, as follows:

> An internal explanation in linguistics is one in which a set of facts fall out as a consequence of the deductive structure of a particular theory of grammar. An external explanation is one in which a set of facts is derived as a consequence of principles outside the domain of grammar. (Newmeyer 1998: 96)

Newmeyer then claims that all grammars postulate some grammar-internal generalisations – for instance the reason for the subjects of all passive verbs in English being in the nominative case is that all subjects, of whatever verb, are in the nominative. Because of their adherence to the autonomy principle, however, formalists would want to go much further than this

> . . . to construct a formal model from which the syntactic properties of the language under consideration follow as an automatic consequence. (Newmeyer 1998: 101)

Newmeyer also claims that functionalist accounts make use of internal explanation, and cites as an example the unidirectionality which is a key feature of functionalist accounts of grammaticalisation. That is, it is postulated that in the kind of historical change which is involved in grammaticalisation, lexical elements become grammaticalised, but grammatical elements never become lexicalised. This, Newmeyer observes, is a grammar-internal hypothesis. Nevertheless, it is Newmeyer's view that

> . . . it is a defining characteristic of functionalism in linguistics that any 'real' explanation of a grammatical regularity must be external to grammar itself.
> (Newmeyer 1998: 102)

Newmeyer's use of the term 'grammar' in the quotations above makes it difficult, at first, to decide whether he is talking about the grammar as widely conceived, or just about syntax. The confusion is cleared up, however, by his use of 'syntax-internal' as a synonym for 'grammar-internal' in his discussion. The last quotation, then, may be taken as claiming that all functionalists believe that any real explanation of syntactic phenomena must come from outside the syntax itself – in other words, that the syntax is not, in Croft's terms, self-contained. Newmeyer thus excludes Croft's 'autonomist functionalists' from his characterisation of functionalism. For the other groups in Croft's classification, however, Newmeyer's claim is for the most part accurate, though we shall see below that competing external factors can create situations in which languages may change from within, even if the external factors remain constant.

As we saw in the earlier discussion of Croft's classification, many functionalists (Croft's 'integrative' type) would wish to go beyond the claim that the syntax of a language is ex-

ternally motivated, to propose that the grammar in its wider sense is so intimately bound up with external motivating factors that it makes no sense to try to describe it without reference to those factors. Let us, then, turn to the nature of the external factors which have been proposed. I shall begin with Dik's account and then move to Newmeyer's critical evaluation of functionalist positions.

Dik divides "the functional prerequisites imposed on natural languages" into three broad categories:

> (i) the aims and purposes for which natural language expressions are used;
> (ii) the means by which natural languages are implemented;
> (iii) the circumstances in which natural languages are used. (Dik 1986: 21)

As we have seen, one of the fundamental tenets of functional linguistics is that languages are primarily means of human communication. We might expect, then, that one of the factors which has shaped the forms which languages take is the need for the efficient transfer, from speaker/writer to hearer/reader, of information of various kinds. Note that we are not concerned here only with factual or representational information, but also with the whole range of types of information which have been variously described as 'social' (Lyons 1977: 50ff.), 'expressive' (Lyons 1977: 50ff.), and interpersonal (Halliday 1970a: 143, Lyons 1977: 50ff.). Indeed, from a functional point of view it is not surprising that the first systematic patterns found in child language acquisition are concerned with demanding objects, getting people to do things, interacting socially with carers, and the expression of personal reaction, rather than with the transmission of factual information, which emerges considerably later, at the age of 21–22½ months (Halliday 1975: 40): after all, the initial functional pressures on the child are the need for food, warmth, affection, and so on, rather than the need to transmit facts and ideas.

A second important source of functional pressure on languages is the means by which messages are conveyed: that is, primarily the vocal-auditory channel, with the written mode as secondary. As Dik (1986: 30ff.) has pointed out, many of the phonological characteristics of languages can be accounted for in terms of pressures deriving from the nature of the vocal tract and of the associated psychological processing mechanisms. Among those discussed by Dik are ease and economy of articulation, and properties related to the degree of perceptibility of sounds (e.g. the fact that in 3-vowel systems, the vowels usually occupy maximally distinct positions in the phonological space).

An example at the syntactic level would be the principle of end-weight, whereby complex, 'heavy' constituents tend to be placed late in the clause. Dik (1978a: 189–212, 1997a: 411–413, 1997b: 126–131, see also §3.2.3 of the present work) has generalised this principle into what he calls the Language-Independent Preferred Order of Constituents (LIPOC), which states that, other things being equal (which they frequently are not – see the discussion of competing motivations below), constituents will be ordered in terms of their complexity, from least to most complex. Dik links this principle to the functional pressure of psychological processing mechanisms:

> The following hypothetical psychological principle would have explanatory power with respect to LIPOC:

> It is easier to perceive, process, and store complex information when this information is presented in chunks of increasing internal complexity. (Dik 1978a: 212)

A particularly important factor in aiding the processing of language, according to many functionalists, is the non-arbitrariness which I touched on earlier in my discussion of Croft's classification of functionalist approaches. Dik (1986: 37ff.) distinguishes the principles of isomorphism and patterning, the latter being of two kinds, arbitrary and iconic. What Dik labels isomorphism is also referred to as biuniqueness, that is a one-to-one relationship between meaning and form. Dik points out that languages tolerate some deviation from this principle, and that there are mechanisms, well-documented in the literature on historical linguistics, by which deviations can be avoided or restored to relative conformity with the principle. The principle of iconicity postulates that in many linguistic phenomena some degree of similarity is found between the form and content of linguistic expressions (see, for example, Haiman 1980, 1983, 1985; Givón 1983, 1984a, 1984b, 1989, 2001a, 2001b). Following Haiman, Dik (1986: 40–41) points out that iconicity is evident wherever, for example, reduplication of linguistic material indicates plurality, repetition or intensity, or where formal complexity reflects semantic complexity, constituent order mirrors temporal or psychological order, or the formal cohesion between items parallels their semantic cohesion. It has also shown by Givón (see the publications cited above) that the degree of explicitness of linguistic expressions is correlated with the degree of predictability or, conversely, unexpectedness, of the entity referred to.

Dik (1986: 39–40) also points out that even where patterning is not plausibly seen as iconic, but is 'arbitrary' (see, however, the caveats on arbitrariness discussed earlier), it can still aid in language processing. For instance, what in Government and Binding Theory is termed the 'head parameter', i.e. the relative position of heads and their modifiers in syntactic constructions, is arguably non-iconic; nevertheless, the consistency in ordering across different types of head-modifier relation allows language users to interpret new instantiations correctly. Similarly, the dominant orderings of Subject, Verb and Object (e.g. SVO for English, VSO for Japanese, etc.) provide interpretation strategies for decoding.

So far, then, we have seen that Dik postulates communicative efficiency, together with physiological and psychological processing factors, as important influences on the forms which languages take. A third important source of functional pressure on languages is the socio-cultural context. Here, as Dik (1986: 27–28) reminds us, we are concerned with all those aspects of languages which allow us to signal, and respond to, relationships between addressor and addressee – relationships which themselves are strongly culture-dependent. Why, for instance, in English-speaking cultures, might we ask a stranger for information using some formula such as *I wonder if you could possibly tell me* …, and why would this be quite inappropriate (and so considered sarcastic or ironic) as a way of eliciting information from a close relative, for whom a plain *What …?* question would be sufficient? The answer, as discussed in many treatments of linguistic politeness, is rooted in the concept of indirectness: an indirect speech act mirrors the distancing between speaker and hearer which the speaker wishes to signal,

and this very signal would clearly be inappropriate for a close relative, except if temporary distancing were intended. Note also that indirect speech acts tend to be longer than direct ones, so that length also comes to be associated with greater politeness, in the right contexts. In other words, iconicity is an important aspect of the signalling of politeness.

Finally, mention should be made of diachronic change in relation to functional explanations. Dik (1986: 21–22) emphasises the effects of competing functional pressures on the development of languages, but as Givón (1979: Ch. 6, 1984a: 41) reminds us, the relationship is two-way, in that language change is one of the main factors in the motivation of form-function relationships. An important functionalist concept in the area of diachronic linguistics is that of grammaticalisation, the process whereby some originally lexical items lose their lexical status over time, and become grammatical markers, under the pressure of functional constraints (see, for example, Haiman 1985; Hopper & Traugott 1993).

There is, of course, no guarantee that all of the various functional pressures reviewed above will lead in the same direction, and this, as we shall see in more detail below, has been seen as a problem by formalists wishing to argue against the functionalist perspective. The position widely espoused within the functionalist literature is that the state of a language at any particular time is the result of **competing motivations**. Three representative quotations are given below:

> . . . it is rarely the case that a single surface convention serves one and only one communicative function. Rather, most aspects of the grammar are governed by several competing aspects of the communicative situation (cognitive structures, social goals, perception, and production constraints). (Bates & MacWhinney 1982: 187–188)

> There is thus continuous competition between different functional prerequisites; the actual synchronic design of a language is a compromise solution, a precarious balance in efficacy with respect to different functional prerequisites. (Dik 1986: 21–22)

> Clearly, any simplistic concept of functionalism, which attempts to work in terms of a direct one-to-one mapping between function and form, is bound to fail. The general function of language is 'communication', but communication is a highly complex 'process', involving very many different dimensions at many levels of analysis [. . .]. Each of these dimensions imposes its own requirements on structure and use, and these requirements are not always mutually compatible, hence the linguistic system is constantly torn back and forth between them in a never ending dynamic process of adaptation. (Nuyts 2000: 126)

Dik (1986: 22) points out a consequence of this 'precarious balance', namely that languages may veer internally between different compromise solutions, even if the external pressures remain constant; in other words, change can arise 'from within', though the ultimate explanations for the unstable situations which result in those changes are external.

It is worth noting that most of the functional pressures discussed briefly above are related to characteristics of human beings as a whole, and of language processing mechanisms (the notable exception is socio-cultural context, though even here, universals have been proposed). If these factors are indeed important in shaping the forms of lan-

guages, we might expect them to leave their imprint on all human languages, though the details would be expected to vary because of competition between motivations. It is not surprising, then, that functionalists have often attempted to validate their claims through the study of a wide range of language types, so that a typological dimension comes out strongly in many functional grammars. Van Valin (2000: 324) also points out that many major contributors to functional linguistics in the USA have worked on languages in which the grammatical coding of communicative function is clearer than it is in English.

Let us now turn to Newmeyer's (1998) critical account of the factors proposed by functionalists as explanations for why languages are as they are, which builds on his earlier discussions of this area (Newmeyer 1991a, 1991b, 1992, 1994).

Newmeyer devotes considerable attention to explanations based on language processing, and agrees with functionalists that these are plausible:

> . . . the demands of real-time language processing may have 'left their mark' on grammars, in the sense that some grammatical features can be attributed to an accommodation of the grammar to the parser. (Newmeyer 1998: 106)

Newmeyer is particularly impressed by the Early Immediate Constituents (EIC) principle put forward by Hawkins:

> The human parser prefers linear orders that maximize the IC-to-non-IC ratios of constituent recognition domains (CRD). (Hawkins 1994: 77)

where the constituent recognition domain for any given phrasal mother node is the set of nodes which must be parsed for recognition of this node and all its immediate constituents. As Newmeyer observes, Hawkins shows that this principle is able to make correct predictions in a number of areas concerned with linear ordering, such as the tendency in VO languages for 'heavy' constituents to occur towards the right of the VP, the predilection for extraposition of sentential Subjects in VO languages as contrasted with the preposing of sentential Objects in OV languages, the tendency of VO languages to be prepositional and OV languages postpositional, and the rarity of centre- and particularly self-embeddings in the world's languages.

Newmeyer also reviews functionalist claims concerned with iconicity, and observes that this term has often been used somewhat loosely by functionalists. He himself (1998: 115–118) concentrates on 'structure-concept iconicity', which, following an earlier paper (Newmeyer 1992), he subcategorises into the following types:

- **iconicity of distance**: the idea that the linguistic distance between two items reflects the corresponding conceptual distance (e.g. Haiman's (1983, 1985) claim that there will be no language in which the linguistic distance between two expressions X and Y will be greater in signalling inalienable possession than in signalling alienable possession);
- **iconicity of independence**: Haiman's (1983: 783) claim that there is a correlation between the linguistic separateness of an expression and the independence of the concept represented by that expression (e.g. nouns which are incorporated morphologi-

cally into other words have less possibility for independent reference, and for focus or stress, than non-incorporated nouns);
- **iconicity of order**: the tendency of morpheme or word ordering to reflect the logical relationships which their referents enter into;
- **iconicity of complexity**: the relationship between linguistic complexity and conceptual complexity, as seen, for example, in reduplication of elements to indicate plurality;
- **iconicity of categorisation**: the claim that concepts which are realised by the same grammatical category also tend to have cognitive similarities, as exemplified by the tendency of grammatical subjects to be agents, and objects to be patients.

Newmeyer (1998:130) considers that structure-concept iconicity is a plausible external explanation for what grammars look like, although he suggests (1998:129) that this factor may be reducible to processing effects, since one would expect that it is easier to process language if there is some degree of relationship between linguistic elements and the concepts they stand for. He points out (1998:157–161) that formalists have often posited highly iconic relationships between structure and meaning, and that although they have not seen these relationships in causal terms, the postulation of causality is very plausible.

Newmeyer also discusses briefly two factors, text frequency and economy, which he believes can be reduced to parsing constraints. With regard to text frequency, he argues that it is unlikely that language users can have a mental representation of the relative frequencies of all the grammatical constructions of a language. He also considers that there are more plausible explanations, essentially in terms of processing constraints, for phenomena for which frequency has been seen as responsible. Likewise, matters of economy are basically concerned with processing effects.

There is one type of functional explanation, however, which Newmeyer sees as at odds with empirical observations. This is the claim that the syntax of a language comes about largely as a response to "discourse pressure to optimize information flow" (1998:130). For example, Newmeyer cites two principles which have been put forward by functionalists, the Prague School concept of 'communicative dynamism' and Givón's (1988) 'communicative task urgency' principle, which lead to conflicting predictions in terms of the distribution of 'given' and 'new' information, and both of which give predictions that conflict with those of Hawkins' Early Immediate Constituents parsing principle. Hawkins demonstrates empirically that it is his principle that makes the correct predictions.

To summarise the necessarily rather brief presentation of Newmeyer's view presented so far: Newmeyer is quite willing to accept that two factors external to the grammar, processing constraints and structure-concept iconicity (the latter possibly being ultimately assimilable to the former), are probably responsible, at least in part, for the shapes of the grammars of languages. Furthermore, (some of) the effects attributed by functionalists to text frequency and economy can also be linked to processing factors. Thus, although he parts company with (some) functionalists as far as the effects of information flow in discourse are concerned, Newmeyer is not basically in disagreement about the fundamental principle of functionalism, namely that grammars are the way they are, at least in part,

because of influences which are external to them. Why, then, does he still see functionalist programmes as problematic? The answer to this question lies in the concept of competing motivations which I examined briefly earlier.

In earlier work, Newmeyer seems quite content to accept the principle of competing motivations:

> … one could plausibly maintain the position that individual instances of language change are determined in whole or in part by system-external functional factors, yet the net effect of the entire set of changes, as a result of their complex interaction with each other, is a synchronic system in which the relationship to these functional factors is largely opaque. (Newmeyer 1991a: 5).

Furthermore, competing motivations are invoked as an explanation for why the formalist grammatical model, based on Universal Grammar, has the shape it does:

> … the organization of the grammatical model itself and several central UG principles take the form that they do precisely because of 'competing motivations'.
> (Newmeyer 1991b: 103)

In his more recent work, however, Newmeyer claims that the competition claim is fraught with difficulties. While space precludes a very detailed analysis, the importance of this area justifies a fairly full summary of his arguments.

For Newmeyer, the key question is whether it is possible to build external functional motivations into synchronic grammatical analysis. In other words, he wishes to

> … examine the implicit assumption in much functionalist work that an optimal grammatical description specifies direct linkages between the formal properties of language and the external forces that are responsible for them.
> (Newmeyer 1998: 140–141)

He then goes on to examine, as an example of such an assumption, Dik's (1989a: 215) account of indirect object constructions, in which the order DO-IO reflects movement of what is given from giver to recipient, and so is iconic, while the opposite order is said to reflect the greater prominence which animacy confers on the recipient. Newmeyer assumes that the functionalist would propose a direct link from the motivating factors to the ordering of elements. He then points out (1998: 141) that not all languages have this alternation in ordering (examples are given from Bini and Hausa, to contrast with English), and assumes that the functionalist explanation would be that in certain languages, one motivation wins out against the other. He goes on to comment:

> It might very well be the case that over time prominence and iconicity have helped to shape the respective orders of direct and indirect objects of the three languages in their different ways. But from that fact it does not necessarily follow that in the synchronic grammars of the languages the same motivating factors are at work.
> (Newmeyer 1998: 141)

Newmeyer points out that in some cases, the original functional motivation for a given grammatical pattern was lost some time in the past (an example from relativisation in

Swahili is given), and that in such cases, that motivation clearly cannot be invoked in relation to the synchronic grammar. Rather, it is the case that phenomena which might once have been motivated functionally have simply survived as conventionalised elements in the language. The only way out of this dilemma for functionalists, according to Newmeyer, would be to claim that convention is itself a functional motivation, and this would seriously weaken the functionalist position, since "convention by definition plays no role in shaping grammatical structure, only in preserving structure that itself was shaped by (presumably) functional factors" (1998: 142).

There are several points in this argument where a functionalist might want to object. Firstly, in terms of strict logical implication, Newmeyer is, of course, correct in saying that the operation of some functional force in the development of a language does not mean that it necessarily operates in some particular synchronic state of that language. Nevertheless, it is surely reasonable to accept, as a hypothesis (and therefore provisionally), that the functional factors which are claimed to be responsible for the appearance of particular word orders over time are also involved in the selection of one order rather than another, when that choice is available.

Secondly, as Croft has pointed out (see above), very few functionalists would want to claim that no aspects of grammar are conventionalised, or arbitrary. We do not have to postulate that convention is itself a functional motivation in order to explain this arbitrariness – the principle of competing motivations, as we have seen, provides the explanation, if it can be upheld. However, Newmeyer is in fact wrong to claim that convention plays no role in shaping grammatical structure. As Croft (1995: 522–523) has pointed out, there are two reasons for regarding the conventionalised, stable, arbitrary elements in a language system as functionally motivated. Firstly, the psychological routinisation of grammatical constructions can be attributed to factors concerned with the efficiency of communication. Secondly, agreed convention plays an important part in the creation and maintenance of social bonds signalled through language.

A major problem with Newmeyer's account is the rigid distinction he assumes between the synchronic state of a grammar and the diachronic changes which have led up to that state. Like other formalists, Newmeyer implicitly assumes that the synchronic grammar which is the object of study can be isolated as a homogeneous system. But once again Croft (1995: 517ff.) reminds us that variationist sociolinguistics has demonstrated convincingly the intimate interplay of the synchronic with the diachronic: the work of Labov and others has shown that the forces for language change are present in the synchronic state of a language, in the form of linguistic variations within language communities, some of which give rise to the 'standard' features of future linguistic communities. Crucially, such systematic variability is present even within the language of individuals, and so must be a part of what the speaker implicitly knows about his or her language. Since the systematicity of the variants is linked to interaction in different social contexts, we see here the operation of external functional factors in the synchronic state of an individual's grammar. To attempt to circumvent this 'problem' by positing multiple socially-determined individual grammars, or sociolects, would, as Croft (1995: 519) rightly says, create an even worse

problem, in that there would then be no principled explanation for the large parts which such sociolects have in common.

As well as rejecting competing motivations as adequate explanations for the synchronic state of a grammar, Newmeyer (1998: 145ff.) argues against competition as an attempt to explain how the typological features of the world's languages are distributed. His view is that

> . . . *in principle* such an approach makes perfect sense. However, given the open-ended multiplicity of motivating factors that have been put forward in the literature and our inability to provide any independent measure of their relative weight, we have no hope of explaining typological generalizations by means of appeal to them. In brief, any conceivable state of affairs, existing or nonexisiting, could be attributed to some reasonable functional force or combination of forces, thereby explaining nothing. (Newmeyer 1998: 145, emphasis in original)

Newmeyer's general point, illustrated by reference to particular analyses from the functionalist literature, is that if one proposes that one motivation is stronger than another, then one must give independent motivation for why this is the case. Newmeyer points out that Croft (1990: §7.4) accepts this argument, but attempts to provide an answer to the problem by postulating that when we have two conflicting motivations, we would expect to find languages in which one, but not the other, was fulfilled, but we would predict that there would be no language which showed patterns that fulfilled neither of the two motivations. Newmeyer (1998: 149ff.) presents two arguments against Croft's position. He explains the first as follows:

> . . . we have no reason to believe that the accidental sample of languages in the world today stands in any close relationship to the class of *possible* human languages. The nonoccurrence of a particular feature in a sample, however large, may simply not be that conclusive with respect to the question of its possibility. (Newmeyer 1998: 149–150, emphasis in original)

In other words, showing that no known language has patterns which refute the predictions of competing motivations is no guarantee against the possibility that there might, in theory, be some possible human language which would indeed refute these predictions. Surely, however, this is simply the problem, common to any scientific endeavour which accepts the principle of the refutation of hypotheses, of finding evidence which falsifies a hypothesis. Furthermore, if Newmeyer's criticism were valid, it could also be levelled at formalist claims: how do we actually know that there could not be some possible human language which violates the principle of subjacency, for example?

Newmeyer's second argument against Croft is that there is no principled limit to the set of possible motivations:

> No constraints have ever been proposed – nor is it even clear that such constraints exist – on what might conceivably act as an external motivation for grammatical structure. (Newmeyer 1998: 150)

Newmeyer goes on to claim that Croft has himself unwittingly illustrated this problem in one of his own analyses. Briefly, the situation is that Croft (1990: 193), as an illustration of his claim that phenomena violating all of a set of motivations should not be attested, postulates economy and iconicity as competing factors in determining the relationship between the number of morphemes used to express a category, and the markedness of that category. Constructions which violate the predictions of both economy and iconicity should not be attested. As Newmeyer observes, Croft (1990: 216) later gives an example where just such a violation is indeed attested, and postulates a third motivating factor to explain the exception. Newmeyer comments:

> In other words, we have found another motivating factor to come to the rescue. Again, since the number of potential motivations is, as far as we know, open-ended, any attempt to explain the typological distribution of a feature on the basis of an appeal to them is extremely problematic. (Newmeyer 1998: 150)

To some extent, Newmeyer's basic point is well taken: an account in which we can always find some other explanation to rescue the situation would indeed be suspect – but only, surely, if that explanation is *ad hoc*. The third factor which Croft appeals to in his explanation is a well-attested phenomenon in the historical development of Slavic languages, and it does indeed provide a convincing and satisfying explanation for the exception at issue. Furthermore, this seems once again a case of the pot calling the kettle black: as sceptics have often dryly observed, the formalist grammars of the not too distant past were well known for their adoption of rescue tactics such as filters.

Newmeyer also claims:

> The problem of weighting motivations is increased astronomically by the fact that there is no simple correspondence between experimentally ascertained preferences of language users and properties of grammars (and therefore, by extension, typology). (1998: 151)

If this claim is tantamount to saying that psycholinguistic evidence does not correctly predict the forms of grammars, and if it could be substantiated on a large scale, it would indeed be worrying. But what it actually appears to mean, from the two examples given, is that

> . . . the parser 'competes' with factors that, given our present state of knowledge, are simply unquantifiable. (1998: 152)

The qualification 'given our present state of knowledge' is important here. No functionalist would claim that we have a complete list of the possible motivating factors – much research remains to be done. But to argue that a line of enquiry is not worth pursuing because of our present state of knowledge flies in the face of the spirit and practice of scientific endeavour – including, it might be said, the formulation of formalist theories of language.

Newmeyer (1998: 153) anticipates, and tries to provide an answer to, a possible objection to his position, namely that appeals to competing motivations are common, and go unchallenged, in other domains of study. The example he cites is that we regard as established the link between smoking and lung cancer, despite the lack of a one-to-one

relationship between those who smoke and those who contract the disease. We could say, then, that smoking habits are in competition with other factors, such as genetic and environmental influences. Newmeyer's view is that this situation is very different from that of competing motivations in language: in the former case, we are relating one cause to one disease, but in the case of language the motivations and the postulated effects are both multiple. What Newmeyer fails to add is that there may be linguistic phenomena with just one straightforward motivation, and that the genesis of disease could be seen in terms of a complex set of factors influencing an equally complex set of pathological states.

Newmeyer's overall conclusion (1998: 153) is that we can indeed identify certain plausible external motivations for typological features (in particular, parsing and structure-concept iconicity), but that it is hopeless to try to explain the typological distribution of some particular grammatical feature in terms of competing motivations. I hope to have shown, in the above discussion, that although a great deal of research into competing motivations is still needed, Newmeyer's views are unduly pessimistic, not only in relation to functionalism but also for the formalist approaches which he himself supports.

We have seen, then, that Newmeyer accepts some kinds of external motivation for grammars, although he considers competing motivations to be a serious problem. He is well aware that functionalists will ask how he can reconcile the acceptance of external shaping factors with his adherence to the claim of autonomous syntax. He illustrates this (1998: 161–162) by means of two analogies which are familiar from previous discussions in the literature: chess and bodily organs. The argument runs as follows. Although it is quite possible that the rules of chess were motivated functionally, a statement of the rules themselves does not make reference to such functional factors, but is a self-contained system, by means of which all legal moves in the game can be generated. Similarly, although external factors (e.g. a bout of drinking) can certainly affect the state of the liver, the liver has not thereby stopped being a self-contained system. What the argument boils down to is this: the syntax of a language is a system in its own right, and in order to specify this system itself we do not need to (and, Newmeyer would claim, we should not) incorporate explanations of why it is the way it is.

This, then, is the nub of the disagreement between formalists and functionalists. As we saw earlier, all present-day functionalists except those who espouse 'autonomist functionalism' (and who, in Newmeyer's terms, are not really functionalists at all), would reject the autonomous specification of syntax as a worthwhile exercise, even if it were possible. A conception of language in which its communicative functions are paramount can have no place for such an autonomous description – put simply, it would be of no use merely to specify the system, without saying why that system is as it is. And many, of course, would reject the very possibility of formulating a purely syntactic system, since they believe they have shown formal patterns to be so intimately bound up with meaning, and with other factors regarded by the formalists as external to the system, that any attempt to describe formal patterns in their own right, while still maintaining the overall goal of accounting for language as a communicative semiotic system, is doomed to failure.

This debate is recast in a particularly interesting light in a paper by Nettle (1999), who compares functionalist approaches in linguistics with those in biology, where it is generally

accepted that Darwinian concepts of evolution, based on the concept of functional adaptation, form the unifying explanatory basis of the discipline. Nettle attributes the problems of functionalism in linguistics[6] to a set of methodological and empirical shortcomings, which have provoked hostility in the formalist camp. Each of these problems, Nettle argues, has a parallel in biology, and each can be resolved in linguistics by measures similar to those already taken in biology.

The starting point for Nettle's arguments (1999: 46–50) is the parallel between biological and linguistic evolution. Just like biological evolution, linguistic evolution is based on replication (the maintenance and transmission of languages by their speakers), variation (in performance), and selection (the adoption of some variants, but not others, into the grammar). Furthermore, we may posit, as a working hypothesis, a Linguistic Adaptiveness Hypothesis which is parallel to the Biological Adaptiveness Hypothesis which must be true for Darwinian evolution to occur:

> **Linguistic Adaptiveness Hypothesis:** The probability of adoption of linguistic forms into a grammar is related to their communicational or cognitive utility.
> (Nettle 1999: 449)

Nettle then goes on to address four types of objection to functional explanation in linguistics, each of which has a parallel in the history of evolutionary biology.

Firstly, formalists have pointed out that many examples of functionalist explanation are circular: "the change is presumed to be adaptive because it occurred, and presumed to have occurred because it is adaptive" (Nettle 1999: 451). This is paralleled by a mode of explanation which was attested in the history of biology, to the effect that "[e]volution is explained as the survival of the fittest structures, but the fittest structures are identified by the fact that they survive" (1999: 451). As Nettle observes, this circularity can be avoided only if there is some independent way of showing that a change is adaptive, in relation to some well-defined goal. In biology, this has been achieved by means of optimality modelling in terms of mathematical functions which, for example, predict quite successfully the effects of the availability, nutritional value and handling time of various foods on the preferences of animals for those foods, on the assumption that these will adapt to maximum efficiency. Nettle points out that similar models can be constructed in certain areas of linguistics,[7] and must be based on empirical data from experimental psycholinguistics, speech production and perception, and the like, and applied to the study of a large and

6. Nettle (1999: 446–447) restricts his comments to functionalist approaches which "seek to explain the structure of languages – their sounds, words and grammatical conventions – using the assumption that they are adapted to their usage in representing and communicating messages", and then goes on to claim that linguists such as Zipf, Martinet, Mandelbrot, Givón and Haiman fall under this category, but that Halliday and Dik represent a rather different kind of functionalism, which attempts "to classify grammatical forms according to the communicative functions which they serve *within* the total system of language". As we shall see in Chapter 2, Nettle's defining criterion actually applies just as well to Halliday and Dik as to the other linguists he mentions.

7. Optimality Theory, as developed by Smolensky, Prince and others (see e.g. Archangeli & Langendoen 1997, Kager 1999), takes as its basis the idea that the forms attested in languages reflect the resolution of

representative range of languages. Nettle cites work by Lindblom (Lindblom 1986, Lindblom & Maddieson 1988), on the prediction of vowel and consonant systems, as a good example of the kind of study which is needed.

A second problem discussed by Nettle (1999: 452–454) is the distorting effect of social selection on the working of the Linguistic Adaptiveness Hypothesis. The biological parallel here is with sexual selection, which can lead to the preservation of features, such as the peacock's tail, with little apparent usefulness apart from their role in sexual attraction. As Nettle points out, however, sexual mechanisms do not replace natural selection, but rather interact with it, the relative importance of the two being a matter for empirical investigation. Similarly, the drive to adapt one's language to the norms of social groups one wishes to identify with interacts with, but does not replace, the basic mechanism which is hypothesised to favour communicational efficiency.

The third problem identified by Nettle (1999: 454–455) is the argument that if the Linguistic Adaptiveness Hypothesis were true, we would expect that all languages would converge on a particular optimal set of characteristics. But it is recognised in biology that evolution leads to a variety of solutions: it is not, for example, expected that all mammals should evolve the same body shape.

The fourth difficulty used in attacks on functionalism (1999: 455–457) is empirical inadequacy. For instance, Mandarin Chinese has undergone massive phonological reduction, resulting in a large number of homophones, which could be seen as communicationally inefficient. Nettle's reply to this criticism is that the decoding pressures which presumably led to the simplifications outweighed the disadvantages of increased homophony, but that the communicational difficulties caused by this homophony were reflected in further changes, replacing some homonyms by different, compound items.

Throughout these various arguments, there runs the thread of competing motivations, and Nettle is well aware that this explanation can easily be made vacuous. As he remarks, competing pressures have often led to apparent arbitrariness, in evolutionary biology as well as in linguistics, but this should not be taken to invalidate the principle of competing motivations. The only way to avoid vacuity is through detailed and rigorous empirical work:

> This must not be used to make functionalism unfalsifiable: we need to have precise, principled models of how different motivations interact, and under what circumstances each is likely to be important. (Nettle 1999: 456)

Despite his more optimistic stance on competing motivations, Nettle's final position is not dissimilar to Newmeyer's, in that he believes functional and formal approaches are not, in principle, incompatible. He cites the work of the great behavioural biologist Niko

conflicts between competing constraints. Although it has been developed furthest in the area of phonology, it has also been applied to syntax and to language acquisition. Although the theory has so far aligned itself largely with formalist approaches, there would appear to be no reason in principle why it should not be applied to functionalist accounts. I am indebted to Lachlan Mackenzie for this suggestion.

Tinbergen, who posited four types of question which one could ask about any kind of behaviour:

1. Functional: What is the purpose of the behaviour, and how is the behaviour adapted to that purpose?
2. Mechanistic: What are the (physiological, neural, cognitive) structures involved in the behaviour?
3. Ontogenetic: What factors influence the development of the behaviour, and how does the developmental process work?
4. Phylogenetic: What is the ancestral history of the behaviour? (adapted from Tinbergen 1963, cited in Nettle 1999: 458)

These four questions were seen by Tinbergen as logically independent, and so, argues Nettle, they can be in linguistics. In other words, functionalists can safely continue to try to answer the first question above, while formalists attempt to answer the second (and to some extent the third, in terms of the logical problem of language acquisition).

This final argument, however, runs up against an important problem, in that it assumes that we have some theory-neutral description of the behaviour under study. As we saw in §1.3, formal and functional linguists do not even agree substantially on what it is that is to be described. Furthermore, different modes of description, involving different theory-internal categories, are appropriate for different ways of construing language. It thus seems somewhat naive to suggest that formalists and functionalists can simply produce differently angled analyses with respect to the same object of description.

Where, then, does this leave us on the question of external functional motivation for linguistic phenomena? The crucial problem is certainly that of justifying arguments involving competing motivation, and I have no doubt that the formulation and testing of predictive models, as advocated by Nettle, is the most convincing way forward. It is surely, however, no accident that most of the studies he cites are related to the phonetic/phonological end of the linguistic hierarchy, where predictions can be made on the basis of reliably measurable physical phenomena such as acoustic spectra. It may be considerably more difficult to formulate such models for higher levels of linguistic description, although Hawkins' (1994) work on the prediction of constituent order on the basis of parsing constraints offers hope that this may be too pessimistic a forecast in relation to syntax. It remains to be seen whether the methodology of predictive models of competing motivation can be made to work for the even higher levels of semantics and discourse pragmatics, with which truly functional theories are very much concerned (see §1.7.1).

As for the inherent compatibility of formal and functional theories celebrated by Newmeyer and Nettle, I remain somewhat sceptical, given the wide divergence between the objects and methods of study. The object of study for the true functionalist must be language as put to communicative use – that is, (at least) **communicative** competence – while that for the formalist remains, essentially, the grammatical competence of the ideal native speaker, isolated from considerations of use. The methodological correlate of this difference is concerned with the primary source of data for investigation: logically, if func-

tionalists are committed to the study of language as used in communicative events, they should take, as one of their main sources of information about the language system, authentic language produced in known situations, though we shall see that in practice functional approaches differ considerably in this respect; formalists, on the other hand, still tend to eschew the study of real texts, regarding such 'performance' data as a degraded, indirect reflection of the underlying competence which is the true object of study.

1.6 Innateness and language acquisition

The principles of functional explanation outlined above are also relevant to the acquisition and development of language in children, as we shall see below. Since so much discussion in the area of acquisition has centred around the Chomskyan model in recent years, I shall sketch that model before presenting the bare bones of functionalist challenges to it.[8]

The problem of language acquisition is of crucial importance to the Chomskyan programme: given that the object of investigation in Chomskyan linguistics is the native speaker's grammatical competence, Chomsky is above all concerned with how that competence comes to be present in the minds/brains of individuals. The solution proposed rests on what is known as the 'poverty of the stimulus' argument: young children, it is claimed, quickly acquire constructions which they could not possibly have learned by generalisation from the language which surrounds them in their everyday lives, since insufficient evidence is available in the linguistic input for such generalisation to be plausible. If, then, such constructions cannot be learned from actual linguistic evidence, the basis for them must already be available to the child in the form of innate principles which, taken together, constitute a genetically pre-programmed language acquisition device. Since, as is well known, a normal child can learn any language, given a suitable environment, these principles cannot be tied to specific languages, but must constitute a 'universal grammar' (UG), common to all human languages.

UG consists of a number of principles, together with a finite number of parameters, each of which can take a small range of values. The principles specify the conditions which all languages must meet, and include, for example, the structure dependency principle, the principles of X-bar syntax, the subjacency principle, and so on. The parameters specify those respects in which languages are free to vary, but within tight limits. For instance, languages can be divided into those, such as English, French and German, which require a Subject nominal and those, such as Spanish and Italian, which do not (the so-called 'pro-drop' parameter); some languages, such as English, consistently have heads before their complements, while others, such as Japanese, have heads following their complements. For any given language, the combination of the universal principles and the parameters with their specific values constitutes the core grammar of that language, other aspects of

8. A somewhat more detailed account of functionalist positions on acquisition will be given in Chapter 5 of Part 2.

the grammar being regarded as peripheral.[9] As pointed out by Radford, the development of Chomsky's thinking in the 1990s, leading to the Minimalist Program,

> ... is motivated to a large extent by the desire to minimize the acquisition burden placed on the child, and thereby maximize the learnability of natural language grammars. (Radford 1997:6–7)

It is interesting that Newmeyer (1998:104) is of the view that to appeal to innateness is itself to provide an external explanation for linguistic phenomena. Furthermore, work by functionalists has suggested explanations for some of the phenomena of language acquisition which do not involve the postulation of innate capacities specific to language, but which do rely heavily on the innateness of more general cognitive capacities. Many functionalists, however, remain open to the possibility that there may be some innate capacities which are specific to language. Apart from the question of degree, the main difference between formalists and functionalists in this respect is that for the formalist the postulation of innateness arises from a logical argument predicated on the correctness of the 'poverty of the stimulus' premise, whereas for the functionalist innateness, like other constructs within linguistics, is a matter for empirical investigation. Lakoff summarises this position clearly:

> It is an open empirical question for us just what is and is not innate. In general, we assume a great deal of innate conceptual structure and processing capacities, and we take these as forming the basis for linguistic universals. (Lakoff 1991:55)

A further consequence of the Chomskyan view of language acquisition as a logical problem is the assumption that we may validly treat the transition between the initial state of the new-born child, and the final steady state of the adult's competence, as instantaneous. The argument here, as presented in Chomsky (1976:121–122), is that if there are fundamentally different stages in language acquisition, and the nature of learning at a given stage depends on what has already been learned, then we would expect that different individuals, exposed to different learning experiences, would achieve different steady-state outcomes. As this seems not to be the case, the initial idealisation, though obviously false, is claimed not to affect the validity of the theory.

Functionalists, unsurprisingly, have challenged the formalist 'instantaneous acquisition' view. As Mühlhäusler observes:

> To argue about development and origins from the end point would seem problematic. As observed by C.-J. Bailey in numerous places, whilst development can explain end points, the reverse is usually not the case. (Mühlhäusler 1991:77)

As Van Valin (1991a:9) has pointed out, almost all the work on acquisition within functionalist frameworks has adopted a constructionist position, under which the child actually constructs the grammar of his or her language, rather than the adaptationist position

9. A useful summary and discussion of the theory of UG, including principles and parameters, can be found in Cook & Newson (1996).

adopted by formalists, which maintains that the child adapts the principles of Universal Grammar to accommodate the data from the language to which s/he is exposed, the only real learning involved being that concerned with the acquisition of the vocabulary.

1.7 Some further issues

The functionalist commitment to an approach which prioritises language as communication might be expected to carry with it certain further commitments, which have perhaps been implicit in our discussion so far, but which deserve to be made explicit, not least because discussions of the nature of functionalism are usually firmly centred around the formalist/functionalist debate, and in particular the issues of autonomy and external motivation.

1.7.1 The centrality of semantics/pragmatics

What is communicated by human language is not fundamentally sounds or marks on paper, nor even lexical items in syntactic constructions, but meanings. Linguists have, to varying extents and with a considerable measure of disagreement, regarded such meanings as belonging to the realms of semantics ('what words and sentences mean') and pragmatics ('what speakers/writers mean in using sentences and other linguistic forms'). It might be expected, then, that a functional approach to language would place semantics/pragmatics at the very heart of the model, thus differing radically from formal approaches, which consider syntax as central.

1.7.2 The importance of the cognitive dimension

If we are to construct linguistic theories around the basic tenet that language is primarily a means of communication, our theories must reflect the intimate relationship between language and cognition. For instance, we might expect a functional theory to have something to say about the relationship between cognitive principles of categorisation and the organisation of the lexicon, and also about the constraints on languages imposed by factors concerned with the storage and retrieval of linguistic items and structures in the production and comprehension of language.

One important aspect of the relationship between language and cognition arises from the fact that in order to be effective in communication, a language must be flexible and capable of creative extension. I am not referring here solely to the concept of creativity which is so crucial to Chomskyan theory (i.e. the native language user's ability to produce and understand sequences s/he has never come across before, by virtue of his or her grammatical competence), important as this is. The creativity permitted by language is much wider and more pervasive than this, including, for example, that made possible by the non-discreteness of word meanings.

It might be expected, then, that functionalist accounts of language would reject the classical, Aristotelian concept of classification, under which entities can be classified in terms of sets of necessary and sufficient features, in favour of some version of the approach to non-discreteness which, prompted by Wittgenstein's (1978) philosophical observations on 'family resemblance' models of meaning, have been developed, largely by psychologists, into what is now generally known as 'prototype theory'.[10]

1.7.3 The importance of discourse and its relationship with context

When we communicate, we do not, in general, use isolated sentences. Rather, communication takes place through multi-propositional discourse, organised into the structures we now recognise as characterising conversations, lectures, committee meetings, formal and informal letters, and the like. These categories recognise the important relationship between (both written and spoken) texts and the contexts in which they are created and understood. It might therefore be expected that an approach which committed its adherents to an essentially communicative view of language would also entail a commitment to the study of discourse and of the relationships between texts and their contexts of production and interpretation.

1.8 Diversity within functionalism: some interim conclusions

We have already seen that there is considerable diversity of viewpoints within functionalism.[11] This diversity emerged clearly from Johanna Nichols' review of the functional approaches which could be recognised in the early 1980s (Nichols 1984), in which she distinguishes conservative, moderate and extreme types, on the basis of the extent to which form is claimed to be motivated by function:

> The conservative type merely acknowledges the inadequacy of strict formalism or structuralism, without proposing a new analysis of structure. [...] The moderate type not only points out the inadequacy of a formalist or structuralist analysis, but goes on to propose a functionalist analysis of structure and hence to replace or change inherited formal or structural accounts of structure. [...] Extreme functionalism denies, in one way or another, the reality of structure *qua* structure. It may claim that rules are based entirely on function and hence there are no purely syntactic constraints; that structure is only coded function; or the like. (Nichols 1984: 102–103)

10. For a good overview see Taylor (1995), and for more detail Rosch (1978), Geeraerts (1989) and other papers in Volume 27 of *Linguistics*, the papers in Tsohatzidis (1990), Seiler (1993).

11. Van Valin (2000: 335–336) even goes so far as to say that many of the ideas and methodologies subsumed under the heading of 'functional linguistics' "are more distant from each other than they are from many formalist ideas".

A rather different classification from Nichols' is offered by Bates & MacWhinney:

> We can discern at least four levels of functionalism, ranging from a relatively conservative historical view to some radical proposals about the nature of adult grammatical knowledge. Each level requires qualitatively different kinds of evidence, although the stronger levels presuppose the more conservative ones both logically and empirically. The four respective positions involve (1) claims about diachronic or historical correlations between form and function, (2) synchronic or ongoing correlations between form and function in real-time processing, (3) use of these form-function correlations in the acquisition of language by children, and finally (4) a functionalist approach to the grammar or system of representation that mediates the relationship between form and function. (Bates & MacWhinney 1982: 178)

We might expect that Nichols' 'conservative functionalists', though perhaps accepting the lower levels of this hierarchy, would not align themselves with full-blown, level 4 functionalism.

Finally, we have the much more detailed typology of functionalist approaches worked out by Croft (1995), on the basis of the distinctions between the autonomy of syntax and the autonomy of grammar, and between arbitrariness and self-containedness, which was discussed in §1.4.

From the discussion in this chapter, and drawing freely on the various classifications of functionalism which have been outlined, we can propose the following properties of functional approaches to language, some of which are present in varying degrees, or in some cases not at all, in particular approaches:

- an emphasis on language as a means of human communication in social and psychological contexts;
- rejection, wholly or in part, of the claim that the language system (the 'grammar') is arbitrary and self-contained, in favour of functional explanation in terms of cognitive, socio-cultural, physiological and diachronic factors;
- rejection, wholly or in part, of the claim that syntax is a self-contained system, in favour of an approach where semantic and pragmatic patterning is regarded as central, with syntax, if recognised as a structural system at all, regarded as one means for the expression of meanings, which is at least partially motivated by those meanings;
- recognition of the importance of non-discreteness in linguistic classification and, more generally, of the importance of the cognitive dimension;
- a concern for the analysis of texts and their contexts of use;
- a strong interest in typological matters;
- the adoption of a constructionist rather than an adaptationist view of language acquisition.

Of these seven characteristics, the first three would seem to be absolutely central to the functionalist endeavour, the others being derivable from them, in varying degrees, as demonstrated by the discussion in this chapter. I would therefore agree with Newmeyer that Croft's 'autonomist functionalists' are not functionalists in the sense intended here.

Beyond these central characteristics, functional approaches differ quite widely, especially in the extent to which they accord importance to cognitive matters, the textual dimension, and language typology.

Even within the central characteristics, however, there are shades of difference, as is implied by the qualification 'wholly or in part'. Crucially, from the point of view of the present book, there are differences in the extent to which functionalists accept that grammar is a system in the structuralist sense. The essential difference between 'moderate' and 'extreme' functionalists, in Nichols' classification, lies in the fact that the latter not only claim that grammatical phenomena and categories emerge from the requirements of discourse, but also go on to reject the concept of grammar as a structural system. Moderate functionalists, on the other hand, while sharing with the 'extreme functionalists' the view that grammar is shaped by use, accept that in synchronic terms the grammar of a language is indeed a system, which must be described and correlated with function in discourse. This is the position which has been characterised by Van Valin as 'structural-functionalist', in his introduction to Role and Reference Grammar:

> Language is a system, and grammar is a system in the traditional structuralist sense; what distinguishes the RRG conception from the standard formalist one is the conviction that grammatical structure can only be understood and explained with reference to its semantic and communicative functions. Syntax is not autonomous. In terms of the abstract paradigmatic and syntagmatic relations that define a structural system, RRG is concerned not only with relations of cooccurrence and combination in strictly formal terms but also with semantic and pragmatic cooccurrence and combinatory relations. Hence RRG may be accurately characterized as a structural-functionalist theory, rather than purely formalist or purely functionalist. (Van Valin 1993b: 2)

If we read Van Valin's 'purely formalist' and 'purely functionalist' as referring to the two ends of a spectrum reflecting the rather complex set of factors discussed in this chapter, then it is in the sense explained above that the term 'structural-functionalist' (or its close relative 'structural-functional') is used in the present book.[12]

Even where grammar as system is indeed accepted, it does not necessarily follow that the system is modelled as 'a grammar', in the sense of an interlocking set of rules and principles whose import and relationships are made absolutely explicit and which is capable, at least in principle, of assigning structures and interpretations to linguistic expressions.

12. It should be noted that the sense of 'structuralist' intended by Van Valin, and taken over in the present book, is not that which Noonan (1999) rejects in his introduction to the principles of West Coast Functionalism. Noonan (1999: 14–17) asserts that the acceptance of "a pure, internally consistent kind of structuralism" entails the acceptance of self-containedness and arbitrariness, as well as systematicity, as defined according to Croft (1995), and also that such a position is independent of any commitment to functionalism. As we have seen, the only group who accept both self-containedness and arbitrariness of syntax, as well as claiming a functionalist orientation, are Croft's 'autonomist functionalists', and the only group who would accept both self-containedness and arbitrariness of the linguistic system are his 'external functionalists'. The group Van Valin is characterising as 'structural-functionalist' is of neither of these types, as will be demonstrated further in Chapter 2.

We can therefore distinguish, within structural-functional **approaches** to language, a set of structural-functional **grammars**.

We see, then, that even Croft's quite fine-grained classification is somewhat over-simplified, and understandably so, since it was developed specifically in relation to the issue of autonomy. In the next chapter, the similarities and differences outlined above will be explored in more detail through an examination of specific approaches, with a view to isolating a central core of **structural-functional grammars** for detailed consideration in the rest of this book and in Part 2.

Chapter 2

Functionalism, structural functionalism and structural-functional grammars

An examination of six approaches to language

2.1 Introduction

In Chapter 1, I arrived at a list of seven functionalist characteristics, which are restated for convenience below:

- an emphasis on language as a means of human communication in social and psychological contexts;
- rejection of the claim that the language system (the 'grammar') is arbitrary and self-contained, in favour of functional explanation in terms of cognitive, socio-cultural, physiological and diachronic factors;
- rejection of the claim that syntax is a self-contained system, in favour of an approach where semantic and pragmatic patterning is regarded as central, with syntax regarded as one means for the expression of meanings, which is at least partially motivated by those meanings;
- recognition of the importance of non-discreteness in linguistic classification and, more generally, of the importance of the cognitive dimension;
- a concern for the analysis of texts and their contexts of use;
- a strong interest in typological matters;
- the adoption of a constructionist rather than an adaptationist view of language acquisition.

We also saw that these could be present to varying degrees, and some of them not at all, in various approaches which consider themselves as functionalist. Of particular relevance to the present work is the fact that functionalist accounts differ in the extent to which they regard grammar as a structural system, and that even those functional linguists who do accept this may not formulate explicit sets of interlocking rules and principles which, in principle, allow us to assign structures and interpretations to linguistic expressions.

In the present chapter, I shall examine, in the light of these points, six approaches which identify themselves as functionalist and/or share at least some of the seven charac-

teristics listed above. I must emphasise that I am not claiming that these are the only approaches which could have been examined: rather, I have chosen them in order to illustrate the range of approaches which subscribe to at least some of the characteristics discussed in Chapter 1, and in order to facilitate the demarcation of the class of structural-functional grammars. The approaches to be discussed are:

- 'generative functionalism', as espoused by, for example, Prince and Kuno;
- Functional Grammar, as initially proposed by Dik;
- Role and Reference Grammar, developed mainly by Van Valin and his colleagues;
- Systemic Functional Grammar, associated principally with the name of Halliday;
- the rather loose collection of approaches sometimes called West Coast Functionalism, which was developed initially by scholars who were (and in some cases still are) located on the West Coast of the USA, but could now be taken to include the work of various other scholars;
- Cognitive Grammar, in the form developed primarily by Langacker.

Many of the topics introduced here will be taken up again at various points in the book, and there is therefore no attempt at a thorough treatment here. Certainly, I shall not try here to assess the extent to which particular approaches succeed in adhering to the principles enunciated by their proponents. Rather, the aim is to present, often in the words of the principal exponents of the six approaches, a thumbnail sketch of underlying principles in relation to our list of functionalist characteristics, which will not only give the reader an introduction to each, but will also allow us to distinguish functional approaches from those which, while sharing some characteristics with them, are not best characterised in these terms, and will also permit us to place the functional approaches on a scale ranging from 'most like formalist grammars' to 'radically functional'. Importantly, the discussion will allow us to narrow the focus of interest still further by distinguishing a small set of **structural-functional grammars** which will form the basis for discussion in the rest of the book.

2.2 'Generative functionalism'

Ellen Prince, in her commentary on Newmeyer's (1991a) discussion of functionalism, complains that because Newmeyer characterises functionalists in terms of their rejection of autonomous grammar

> ... there are a number of linguists who simply do not exist, following Newmeyer's taxonomy. These are a rather diverse group of linguists, all of whom are functionalists in that they study, among other things perhaps, the discourse or processing functions of syntactic forms, but who reject neither a generative account nor the autonomy hypothesis. (Prince 1991:79)

Among such linguists, whom she labels 'generative functionalists', Prince includes herself and also Kuno, whose position is clearly illustrated by the following statement:

> Functional syntax is, in principle, independent of various current models of grammar such as (standard, extended standard, and revised extended standard) theories of generative grammar, relational grammar, case grammar, tagmemics, and so on. Each theory of grammar must have a place or places where various functional constraints on the well-formedness of sentences or sequences of sentences can be stated, and each theory of grammar can benefit from utilizing a functional perspective in analysis of concrete syntactic phenomena. Therefore, in theory, there is no conflict between functional syntax and, say, the revised extended standard theory of generative grammar. (Kuno 1980: 117–118)

Prince (1991: 80) appears to see generative functionalists as differing from other generative linguists primarily in matters of methodology, particularly in relation to the data for linguistic study. While subscribing wholeheartedly to the Chomskyan view that what linguistics must explain is the native speaker's "mass of tacit intuitions", as reflected in his or her competence, Prince rejects the implication that intuitions, rather than attested utterances, are the primary data of linguistics. As she observes:

> . . . the fallacy in this leap is that no one has ever presented even a hint of evidence that any part of the human's linguistic competence is the ability to evaluate sentences produced artificially, out of context. Clearly, such an ability is part of our *metalinguistic* competence, not our linguistic competence . . . (Prince 1991: 80, emphasis in original)

The 'generative functionalist' position can be summarised as follows:

- the 'autonomous grammar' tenet of the formalists is accepted; this is thus a 'conservative' approach in Nichols' terms;
- statements about linguistic competence should take account of the discourse contexts in which sentences are used, as revealed in actual performance;
- Prince, at least, is willing to accept that much of the autonomous syntax component of competence is 'wired in' (Prince 1991: 80).

We see, then, that Prince and Kuno basically subscribe to the formalist agenda: they accept the autonomy principle, and there is no indication that a central aim of 'generative functionalism' is to give an explanatory account of language as communication (though some of Prince's work, in particular, does deal with pragmatic aspects of language – see, for example, her work on information structuring (e.g. Prince 1978, 1981)). As Hopper observes in relation to Prince's 1978 study of clefting:

> Studies of this kind, far from questioning the principles of formal linguistics, may be said to reinforce them by foregrounding the idea of autonomous grammar, and then calibrating selected aspects of this grammar against presumed discourse functions. (Hopper 1992: 364)

Likewise, Van Valin says of such accounts:

> They do not challenge the fundamental assumptions of formal theories, and therefore they represent an extension of them rather than an alternative to them. (Van Valin 2000: 330)

For Croft (1995: 496–497), Prince and Kuno represent what he calls 'autonomist functionalism' (see §1.4.2). Work of this kind is, however, clearly very peripheral in terms of the characteristics I have put forward as central to the core of functionalist studies, namely an overriding concern with language as communication, and the rejection of the autonomy hypothesis. In a sense, then, Newmeyer is right to exclude 'generative functionalism' from functionalism proper.

2.3 Dik's Functional Grammar

Functional Grammar (FG) was originally proposed in Dik (1978a), and has been revised and amplified as a result of work by numerous scholars since then. The most recent overview is available in the two volumes of Dik's *The Theory of Functional Grammar*, henceforth *TFG1* (Dik 1997a, which is a revised edition of Dik 1989a) and *TFG2* (Dik 1997b).[1] Very brief summaries of the theory are available in Dik (1994, 1996); short accounts of key elements can also be found in the reviews of *TFG* by Verstraete (2000) and Martín Arista (forthcoming), who deal with both volumes, and Yang (2000), who concentrates on *TFG2*. A valuable critical discussion of FG can be found in Siewierska (1991). A brief history of FG is available in Anstey (forthcoming).[2]

2.3.1 Language as communication

FG explicitly claims to be concerned with language as communicative, social interaction:

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

> In the functional paradigm, [...] a language is in the first place conceptualized as an instrument of 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 1997a: 3)

In other words, as Dik (1997a: 5) makes clear, the ultimate aim of FG is to account for the communicative competence of the natural language user.

2.3.2 Rejection of the autonomy of the grammar, in favour of functional explanation

We have already seen, in §1.5, that Dik (1986) has provided a detailed discussion of the kinds of functional pressure which shape the forms of languages, and that he endorses

1. Earlier versions of much of the discussion in this section can be found in Butler (1990, 1991a, 1999a).

2. At the time of writing this book, information on FG can also be found on the FG web site at http://www.functionalgrammar.com, which has links to other sites, including a discussion list.

the idea that these differing functional motivations may, at any one time and in particular areas of the grammar, be in competition, so giving rise to apparent arbitrariness, or 'autonomy'.

FG does, however, accept that the grammar of a language is a system in the structuralist sense. Discussing linguistic expressions, Dik states:

> These expressions themselves are again structured entities, i.e. they are governed by rules and principles which determine their build-up. (Dik 1997a: 3)

These rules and principles must be explained, wherever possible, in functional terms:

> . . . 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 1997a: 4)

2.3.3 The centrality of semantics and pragmatics, and the motivation of syntax

Dik's approach is also typically functionalist in giving priority to semantics and pragmatics rather than to syntax, and indeed casts doubt on the possibility of making a clear division between syntax and semantics:[3]

> Semantics is regarded as instrumental with respect to pragmatics, and syntax as instrumental with respect to semantics. 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 1997a: 8)

Indeed, as will be discussed later, FG has no clear separate level of syntactic patterning: rather, syntax, together with morphology and intonation, is one of the types of device through which meanings are expressed, via the 'expression rules' of the grammar.

The above quotation suggests that pragmatics should occupy a central place within the overall account of language envisaged by Dik, and indeed one of the standards of explanatory adequacy which Dik (1997a: 13) sets up for his theory is that of **pragmatic adequacy**.

2.3.4 The cognitive dimension

Dik also makes a commitment to **psychological adequacy**, so building a cognitive dimension into the theory:

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3. Note that here Dik appears to be using the term 'autonomous' to mean 'separate, as levels of description'.

> . . . 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 1997a: 13)

Nuyts (e.g. 1992a, 2001a) has developed a variant of FG which he calls Functional Procedural Grammar, and which takes the cognitive dimension particularly seriously. Recent work in the Functional Lexematic Model, which combines ideas from Dik's FG and from Coseriu's lexematics, also has a strong commitment to cognitive matters (see e.g. Faber & Mairal Usón 1999). Recently there have been a number of attempts to make aspects of the model more sensitive to processing considerations (see e.g. Mackenzie 2000; Hengeveld forthcoming a, forthcoming b; Bakker 1994, 1999, 2001; Bakker & Siewierska 2002, forthcoming).

2.3.5 Text and its relationship with context

FG was for many years developed almost entirely as a sentence grammar. Dik does, however, comment as follows on the desirability of a textual dimension to FG:[4]

> . . . the highest aim of a functional grammar of a particular language is to give a complete and adequate account of the grammatical organization of connected discourse in that language. (Dik 1997a: 12)

This statement is amplified as follows in *TFG2*:

> . . . the theory of FG, if it is to live up to its self-imposed standards of adequacy, should in the long run account for the functional grammar of discourse. In other words, it should show how clauses can be combined into coherent stretches of talk, conversation, or written text. At the same time, it is evident that this is a very high aim for a theory of grammar to strive for, and that we have only the bare outlines of what a theory of discourse should look like. (Dik 1997b: 409)

A programmatic sketch of Dik's own discourse model is given in Chapter 18 of *TFG2*. We shall see that in the last few years considerable effort has been expended in the development of submodels of discourse in FG.

2.3.6 Typological considerations

FG is explicitly committed to standards of **typological adequacy**. 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 1997a: 14)

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4. Dik, in common with many other writers, does not distinguish clearly between *text* and *discourse*. I shall not pursue this distinction in the present chapter; it is, however, discussed in Chapter 4 of Part 2.

This orientation is amply reflected in the work of Dik and other FG linguists. For example, the discussion in Dik's *TFG* is illustrated by reference to more than 80 languages, and one only has to consult a bibliography of FG[5] to appreciate the wide range of languages which have been studied. Furthermore, FG linguists have provided methods for the construction of typologically balanced samples of languages (see Rijkhoff & Bakker 1998).

2.3.7 Language acquisition

Dik makes a commitment, in principle, to a functionally-based account of language acquisition:

> From a functional point of view, [...] it is certainly much 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 1997a: 7)

There has, however, been only a limited amount of work on acquisition within FG.

2.3.8 Summary

Summarising the above, we may say that FG:

- regards as central the fact that language is used primarily for communication in social and psychological contexts;
- is trying to account for the communicative competence of the natural language user;
- rejects the arbitrariness and self-containedness of the linguistic system, and proposes that the forms of grammars are the result of competing functional motivations – FG can thus be seen as an integrative functionalist theory, in Croft's terms, although in practice the emphasis on the linguistic system itself means that the degree of integration attempted is less than in, for example, SFG and West Coast Functionalism;
- considers semantics and pragmatics as central to the approach, but recognises syntax as one means for the realisation of meaning – FG is thus a structural-functional approach (or a 'moderate' functional approach in Nichols' terms), and is classified by Croft (1995: 502) as a mixed formal/functionalist approach;
- makes a commitment to psychological adequacy, which is being realised in recent work by building in relationships between language and human categorisation, and also a sensitivity to processing factors;
- has only recently paid considerable attention to discourse-related matters, though these loom large in current work;
- is very much concerned with matters of typological adequacy;

5. See, for example, de Groot & Olbertz (1999). An updated version with searching facilities is available at http://www.functionalgrammar.com.

- takes a basically constructionist stance on language acquisition, though rather little empirical work on this area within FG has been published.

2.4 Role and Reference Grammar

Role and Reference Grammar (RRG) was first proposed by Foley & Van Valin (see Van Valin & Foley 1980; Foley & Van Valin 1984) and has since been developed largely by Van Valin and his colleagues. The most recent authoritative accounts of the theory are Van Valin (1993b) and Van Valin & LaPolla (1997).[6] A new introduction to RRG is also due to appear (Van Valin, forthcoming).

2.4.1 Language as communication

RRG is firmly committed to the study of language as communication:

> The theme underlying the various functional approaches is the belief that language must be studied in relation to its role in human communication. Language is thus viewed as a system of human communication, rather than as an infinite set of structural descriptions of sentences. (Foley & Van Valin 1984: 7)

What RRG is attempting to characterise, then, is not just syntactic competence, but communicative competence:

> … because speaking is a form of social behavior and the different activities in which speaking plays a role are governed by sociocultural norms and conventions, a speaker's knowledge of language also includes knowledge of these social constraints. Hence what the functionalist seeks to characterize is what Hymes […] calls a speaker's *communicative competence*, a notion which subsumes Chomsky's concept of grammatical competence and which explicitly involves both linguistic and social knowledge.
> (Foley & Van Valin 1984: 11)

2.4.2 Rejection of the autonomy of the grammar, in favour of functional explanation

RRG is committed to the functional explanation of linguistic phenomena, as is indicated by the italicised portion of the following quotation:

> … functional explanations for morphosyntactic phenomena relate not only to such things as markedness relations among linguistic forms but also to pragmatic principles, and discourse and sociolinguistic universals, *which themselves must be related to necessary properties of communication systems in general and human perceptual mechanisms and social interaction in particular*.
> (Foley & Van Valin 1984: 13; emphasis added)

6. At the time of writing, information on RRG can also be found on the RRG web site at http:// linguistics.buffalo.edu/research/rrg.html, which also has links to other sites, including a discussion list.

However, it is probably fair to say that the emphasis in RRG has been on the exploration of language systems themselves, though from the perspective of their use in communication:

> Languages are *systems*, not random collections of grammatical constructions. When we explore them from the perspective of how they achieve a certain communicative end, we see their systematic nature most clearly.
> (Foley & Van Valin 1984: 374: emphasis in original)

2.4.3 The centrality of semantics and pragmatics, and the motivation of syntax

RRG rejects the autonomy of syntax claim of the formalists, in favour of the idea that function motivates form, but accepts that the syntax of a language constitutes a system:

> … one of the basic principles of functional linguistics is that clause-internal morphosyntax can only be understood with reference to the semantic and pragmatic functions of its constituent units, and consequently the major task is to describe the complex interaction of form and function in language. (Foley & Van Valin 1984: 14)

> Language is a system, and grammar is a system in the traditional structuralist sense; what distinguishes the RRG conception from the standard formalist one is the conviction that grammatical structure can only be understood and explained with reference to its semantic and communicative functions. Syntax is not autonomous. In terms of the abstract paradigmatic and syntagmatic relations that define a structural system, RRG is concerned not only with relations of cooccurrence and combination in strictly formal terms but also with semantic and pragmatic cooccurrence and combinatory relations. Hence RRG may be accurately characterized as a structural-functionalist theory, rather than purely formalist or purely functionalist. (Van Valin 1993b: 2)

Van Valin also makes it clear that syntax is only relatively, rather than completely, motivated:

> Syntax is not radically arbitrary, in this view, but rather is *relatively motivated* by semantic, pragmatic and cognitive concerns. It is not completely motivated: syntax cannot be reduced to any one or a combination of these notions. There is a significant degree of arbitrariness in linguistic structure which cannot be denied, …
> (Van Valin 1991a: 9, emphasis in original)

Unlike FG, RRG has an explicitly syntactic component of clause structure, which is nevertheless still semantically motivated. This will be discussed further in Chapter 4.

2.4.4 The cognitive dimension

Van Valin & LaPolla (1997: 11) see RRG as adopting a "communication-and-cognition perspective" on language, and (1997: 15) commit themselves to a number of goals, including the explanation of "how speakers produce and understand language in real time" (1997: 4). There is, however, little indication of such explanations in the RRG literature so

far. However, as we shall see in §2.4.7, RRG does take a particular view of the cognitive processes involved in language acquisition.

2.4.5 Text and its relationship with context

RRG pays a great deal of attention to information structuring in the clause, and also to types of clause linkage, topic chains, switch reference, and the like.[7] Indeed the goal of Foley & Van Valin's 1984 book was that of "uncovering some important aspects of the interaction between syntax and certain discourse processes" (1984: 1). Proponents of RRG have not, however, constructed a general sub-theory of discourse structure. Furthermore, work on text-context relations is not a priority: indeed, Van Valin & LaPolla (1997: 15) exclude explanation of "how speakers use language in different social situations" (1997: 3) as a primary goal of RRG. Nevertheless, Van Valin & Foley (1980: 333) state that one of the goals of RRG is "the development of a framework for grammatical analysis that will yield results directly relevant to sociolinguists and anthropological linguists who study language in the sociocultural world". The manner in which this is stated, however, is significant, and reminiscent of Dik's claims about FG: RRG is intended to provide descriptions which will be relevant to the work of socially-oriented linguists, rather than taking that work into account in the formulation of its own proposals.

2.4.6 Typological considerations

RRG places very great emphasis indeed on the typological adequacy of the grammar:

> . . . the theory is greatly concerned with typological issues. In particular, it seeks to uncover those facets of clause structure which are found in all human languages (Van Valin 1993b: 4)

Indeed, Van Valin states that RRG arose out of an attempt to answer the question

> . . . what would linguistic theory look like if it were based on the analysis of Lakhota, Tagalog and Dyirbal rather than on the analysis of English? (Van Valin 1995: 461, 1996: 281)

This orientation is reflected in the wide range of language types which have been studied within RRG.

2.4.7 Language acquisition

RRG adopts a constructionist approach to language acquisition:

> The RRG approach to language acquisition [. . .] rejects the position that grammar is radically arbitrary and hence unlearnable, and maintains that it is relatively motivated

7. These areas will be discussed in Part 2.

> (in Saussure's sense) semantically and pragmatically. Accordingly, there is sufficient information available to the child in the speech to which it is exposed to enable it to construct a grammar, and therefore the kinds of autonomous linguistic structures posited by Chomsky are unnecessary. (Van Valin 1993b: 2)

Van Valin and others have in fact presented detailed arguments for the learnability of various aspects of the grammar, as postulated in RRG (see e.g. Van Valin 1991a, 1994, 1998).[8]

2.4.8 Summary

The positions taken by RRG may be summarised as follows:

- it considers as central the fact that language is used primarily for communication in social and psychological contexts;
- it rejects the autonomy of the linguistic system, in favour of (partial) motivation by communicative factors – it is thus an integrative functional theory, in Croft's terms, though as in FG, the degree of integration attempted is less than in SFG and West Coast Functionalism;
- like FG, it rejects the autonomy of syntax, and is a 'moderate' functional grammar, claiming that function, form and the motivated relationships between the two, need to be accounted for – in other words, RRG is a 'structuralist-functionalist' approach, or, in Croft's terms, a mixed formal/functionalist theory (Croft 1995: 502);
- it is attempting to characterise communicative competence;
- it places semantics and pragmatics at the heart of the model, but also has a (semantically-motivated) syntactic component;
- it gives considerable attention to matters such as information structure in the clause, clause connection and reference tracking in discourse, but so far lacks a wider theory of discourse structure;
- RRG makes a commitment to cognitively-oriented explanation, though this is not strongly reflected in work to date;
- RRG places a great deal of emphasis on typological adequacy;
- it takes a constructionist approach to language acquisition.

2.5 Systemic Functional Grammar

Halliday's work has its roots in the work of Firth, whose categories of system and structure, and characterisation of meaning as function in context, were particularly influential in Halliday's development of his teacher's ideas, as was also the work of Malinowski, the Prague School and Hjelmslev. Initially, Halliday's reshaping of these ideas gave rise to Scale and Category Grammar (see Halliday 1961). In the 1960s and 70s, this model developed

8. These and other approaches to language acquisition will be discussed in Chapter 5 of Part 2.

into what became known as Systemic Grammar, and later as Systemic Functional Grammar. The main developments came about through the progressive semanticisation of the grammar, through the introduction of new ways of looking at function in language, and through Halliday's suggestion that the fundamental aspects of linguistic patterning were paradigmatic (i.e. 'systemic', in Firth's sense of the term), being formalised as networks of closed 'systems' of options offered by the language under description. These characteristics of SFG will be discussed in more detail in later chapters. For detailed discussion of the historical development of SFG and a critical appraisal of the theory up to about 1984, see Butler (1985), and for overviews Butler (1989, 1995). For Halliday's own exposition of theoretical aspects of SFG, see especially Halliday (1978, 1994a, also Halliday & Matthiessen 1999), and for a structural description of English Halliday (1985a, 1994b). Matthiessen (1995) provides a comprehensive paradigmatic (i.e. system-based) description of English, with brief comments on some other languages. Downing & Locke (1992 [2002]) offer a detailed SFG-based grammar intended for advanced students of English. Eggins (1994), Thompson (1996) and Morley (2000) are other recent introductions to various aspects of SFG, and Lock (1996) offers an SFG-based introduction to English grammar for second language teachers.[9]

2.5.1 Language as communication

Halliday makes it very clear that his theory is intended to give an account of linguistic communication:

> … we want to understand *language in use*. Why? Partly in order to approach this question of how it is that ordinary everyday language transmits the essential patterns of the culture: systems of knowledge, value systems, the social structure and much else besides. (Halliday 1978: 52, emphasis in original)
>
> How do people decode the highly condensed utterances of everyday speech, and how do they use the social system for doing so? (Halliday 1978: 108)

It is noteworthy that Halliday's focus here is on the social and cultural functions of communication: indeed, we shall see that this is a major characteristic of Halliday's approach, and is much more fully developed in SFG than in the other functional approaches considered here.

2.5.2 The rejection of the autonomy of the grammar, in favour of functional explanation

Halliday, in common with the other functionalists I have considered so far, believes that the form of language is explicable in terms of function:

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9. At the time of writing, information on SFG is also available from http://www.wagsoft.com/Systemics, which has links to a number of other sites dedicated to this theory, including discussion lists.

> The particular form taken by the grammatical system of language is closely related to the social and personal needs that language is required to serve. (Halliday 1970a: 142)
>
> 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 1994b: xiii)
>
> . . . both the general kinds of grammatical pattern that have evolved in language, and the specific manifestations of each kind, bear a natural relation to the meanings they have evolved to express. (Halliday 1994b: xviii)

There are two particular points to note here. Firstly, as might be expected from the discussion in the previous section, the functional factors to which appeal is made are social and personal, rather than psychological or physiological. Secondly, Halliday takes a very strong stand on functional motivation in claiming that everything in the grammar can be explained in terms of use.

2.5.3 The centrality of semantics and pragmatics, and the motivation of syntax

There can be no doubt that meaning is absolutely central to Halliday's conception of language, and so to SFG. Phenomena which most linguists would label as semantic or pragmatic are at the heart of this approach. The semantic basis of the grammar is made clear in Halliday's own writings:

> A systemic grammar is one of the class of **functional** grammars, which means (among other things) that it is semantically motivated, or "natural". In contradistinction to **formal** grammars, which are autonomous, and therefore semantically arbitrary, in a systemic grammar every category (and "category" is used here in the general sense of an organizing theoretical concept, not in the narrower sense of 'class' as in formal grammars) is based on meaning: it has a semantic, as well as a formal, lexicogrammatical reactance. (Halliday & Matthiessen 1999: 3–4, emphasis in original)
>
> . . . 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 1994b: xix)

We are dealing, then, with a grammar (or rather a lexicogrammar, since we shall see that in Halliday's theory grammar and lexis cooperate in the realisation of meaning and are seen as forming a continuum rather than as sharply separated) which is highly semanticised. It is clear that Halliday does consider the (lexico)grammar to be an abstract system in the structuralist sense: for instance, he refers to grammar and semantics (to the extent that they can be separated) as "purely abstract systems of coding" (Halliday 1994b: xix). When he asserts that SFG "is not a 'structural' grammar (still less a 'structuralist' grammar in the American sense)" (Halliday 1994b: xxvii), what he is rejecting is grammars which are "syntagmatic, having structure as their main organizing concept, and bringing in special devices to relate one structure to another" (1994b: xxvii). As was

mentioned earlier, and as will be demonstrated in more detail in Chapter 5, SFG is a paradigmatically-based grammar.

2.5.4 The cognitive dimension

We saw earlier that Halliday's approach to language is centrally concerned with language as a social phenomenon. This orientation has been paralleled, at least until recently, by a relative lack of interest in the psychological or cognitive dimension. In replying to a question from Herman Parret about Chomsky's claim that linguistics is a branch of cognitive psychology, Halliday made the following observations:

> I am not really interested in the boundaries between disciplines, but if you pressed me for one specific answer, I would have to say that for me linguistics is a branch of sociology. Language is a part of the social system, and there is no need to interpose a psychological level of interpretation. I am not saying this is not a relevant perspective, but it is not a necessary one for the exploration of language. (Halliday 1978: 38–39)

Recently, Halliday has given greater attention to the issue of the relationship between SFG and cognition. A recent major publication by Halliday & Matthiessen (1999) has the subtitle 'A language-based approach to cognition', and this is indicative both of Halliday's recognition of the need, in the current linguistic climate, to take account of cognitive aspects of language, and of his own approach, which is to turn the more usual position on its head:

> Instead of explaining language by reference to cognitive processes, we explain cognition by reference to linguistic processes. (Halliday & Matthiessen 1999: x)

Under this view, cognition is "just a way of talking about language" (Halliday & Matthiessen 1999: x).

Finally, we may note that SFG fully recognises the inherent indeterminacy of language:

> Indeterminacy is bound to arise in language because the grammar is constantly juggling with conflicting categorizations, accommodating them so as to construe a multidimensional meaning space, highly elastic and receptive to new meanings. (Halliday 1997: 9)

> . . . we take indeterminacy for granted, as a normal and necessary feature of an evolved and functioning semiotic system. Rather than being something that needs to be especially remarked on, it is something that should be built in to our ways of representing and interpreting language: part of the background, rather than the foreground, to our account of the construal of experience. (Halliday & Matthiessen 1999: 547)

There is something very close to a reference to prototypes in the following passage from a discussion of types of 'process' (actions, mental processes, etc.) in English:

> Like most linguistic categories, these are distinct enough at the centre but shade into one another at the edges. They do however show certain fairly clear distinguishing features. (Halliday in Kress 1976: 161)

2.5.5 Text and its relationship with context

Of the functional approaches to language, SFG is without doubt one of the most text-oriented. This orientation has its antecedents in Malinowski's (1923, 1935) work on texts in their cultural environment, and in Firth's insistence on the 'renewal of connection' between theoretical constructs and textual data (see Firth 1957). It is no coincidence that the work which would be regarded by most systemicists as the standard reference text on SFG, *An Introduction to Functional Grammar* (Halliday 1985a, 1994b) was written with application to text description specifically in mind. Halliday characterises the theoretical approach which underpins the book as follows:

> In general, [...] the approach leans towards the applied rather than the pure, the rhetorical rather than the logical, the actual rather than the ideal, the functional rather than the formal, the text rather than the sentence. The emphasis is on text analysis as a mode of action, a theory of language as a means of getting things done.
> (Halliday 1994b: xxvii)

However, Halliday warns against the rejection of grammar in the fashionable pursuit of text analysis:

> The current preoccupation is with discourse analysis, or 'text linguistics'; and it is sometimes assumed that this can be carried on without grammar – or even that it is somehow an alternative to grammar. But this is an illusion. A discourse analysis that is not based on grammar is not an analysis at all, but simply a running commentary on a text ... (Halliday 1994b: xvi)

SFG is also very much concerned with the relationships between texts and the contexts in which they are produced and received. It is the only functional approach which has, as an integral component, a model of context (in terms of values of the variables field, tenor and mode) and a set of specific hypotheses regarding the relationships between kinds of meaning and features of context.[10]

2.5.6 Typological considerations

Typological concerns have not played a major part in the development of SFG. For many years, almost all of the central figures in SFG worked on English, though it should be remembered that Halliday's initial work (1956, 1959) was on Chinese. Three of the most authoritative accounts of SFG (Halliday 1994b; Matthiessen 1995; Martin 1992a) are based very largely on English, though with occasional comments about other languages. The most recent extended work from the Sydney grammarians (Halliday & Matthiessen 1999) devotes one chapter to Chinese, with occasional mention of various other languages. As we shall see at various points in the present book, these facts have had important effects on the form of 'mainstream' systemic linguistics, despite the fact that Halliday himself has warned of the need for care to be taken in this area:

10. SFG proposals in this area will be discussed in Chapter 4 of Part 2.

> Modern linguistics, with its universalist ideology, has been distressingly ethnocentric, making all other languages look like imperfect copies of English.
> (Halliday 1994b: xxxi)

There has been more work on languages other than English in recent years, though we shall see that the stance taken on typological matters is very different from that of FG or RRG.

2.5.7 Language acquisition

The title of Halliday's (1975) book, *Learning How to Mean*, succinctly captures the essence of the SFG approach: language acquisition is seen, not in terms of the development of structure in its own right, but as the expansion of the range of meanings which the child can express (by means of structure, but also lexis and intonation), and whose growth is conditioned by the functional pressures on communication at different stages of the child's maturation.

2.5.8 Summary

The main underlying characteristics of SFG, in relation to the features of functional approaches I have proposed, may be summarised as follows:

- it is centrally concerned with language as communication;
- it rejects the autonomy of the linguistic system, and takes the strong view that everything in the grammar is functionally motivated; as in FG and RRG, function, form and the relationships between them all need to be accounted for, making this a structural-functional approach, but one which would be classified as clearly integrative within Croft's typology;
- Halliday rejects even the concept of communicative competence, because he does not wish to oppose knowledge of language to the use of language, but prefers to think in terms of a language potential, from which choices are constantly made in relation to the contexts in which language is used;
- meaning is central to SFG, which does not, however, make sharp distinctions between syntax, semantics and pragmatics, preferring to work with the concept of a semantically-oriented 'lexicogrammar';
- SFG is a text-oriented grammar, and builds in a model of context and of the relationships between text and context;
- indeterminacy in language is regarded as expected, rather than unusual, and many phenomena are seen as probabilistic in nature;
- cognition is interpreted in terms of language, rather than *vice versa*;
- there has been little explicit concern for typological adequacy in SFG, although an increasing number of languages are being studied, and suggestions have been made about what a typological research programme might look like;
- SFG adopts a thoroughly constructionist approach to language acquisition.

2.6 West Coast Functionalism

As was pointed out earlier, WCF is not a single theory, but a collection of work by various linguists, with some common features. It is therefore rather harder to pin down any essential, defining properties in the case of WCF, and indeed I suspect that some of the scholars whose work might be considered under this label would prefer not to be 'labelled' at all. Unsurprisingly, there is no single reference work which can be cited as representative. In what follows, I shall concentrate on the work of Givón (see especially Givón 1979, 1984a, 1984b, 1989, 1993a, 1993b, 1995, 2001a, 2001b), and on that of Hopper and Thompson (especially Hopper 1987, 1992; Hopper & Thompson 1980, 1984), as this will illustrate clearly both the similarities and the differences which are to be found within WCF.

2.6.1 Language as communication

The linguists I am considering as proponents of WCF are strongly committed to the view of language as primarily an instrument of communication, and to the importance of this in explaining why languages are as they are. For instance, when Givón begins his book *Functionalism and Grammar* (Givón 1995) with a number of quotations to illustrate the antecedents of his own thinking, we find that most of these are concerned with language as a tool for communication.

The 'emergent grammar' approach of Hopper and Thompson, which will be commented on below, emphasises even more strongly the importance of language as a communicative tool.

2.6.2 The rejection of the autonomy of the grammar, in favour of functional explanation

WCF linguists are vociferous in their condemnation of the Chomskyan claim that the grammar is autonomous. The following will serve to indicate Givón's stance:

> If language is an instrument of communication, then it is bizarre to try and understand its structure without reference to communicative setting and communicative function. Therefore, grammatical constraints, rules of syntax, stylistic transformations, and the like are not there "because they are prewired into the genetic code of the organism". Nor are they there for no reason at all. Rather, they are there to serve highly specific communicative functions. (Givón 1979: 31)

> All functionalists subscribe to at least one fundamental assumption *sine qua non*, the non-autonomy postulate: that language (and grammar) can be neither described nor explained adequately as an autonomous system. To understand what grammar is, and how and why it comes to be this way, one must make reference to the natural parameters that shape language and grammar: cognition and communication, the brain and language processing, social interaction and culture, change and variation, acquisition and evolution. (Givón 1995: xv)

Givón's firm adherence to the principle of functional motivation of the grammar does not, however, lead him to reject formal structure as a reality of language:

> The rise of grammar may be functionally motivated; but once there, formal structure assumes its own reality, communicatively, cognitively and neurologically.
> (Givón 1995: 11)

As we saw in §1.4.3, Givón's (1995: 11) explanation for this is that in a complex biological system, where structures have evolved under functional, adaptive and often competing pressures, we often do not find a simple, one-to-one relationship between forms and functions.

The 'emergent grammar' position taken by Hopper and Thompson, on the other hand, is a much more radical one, in which grammar is seen as an epiphenomenon of discourse, in that it emerges as a consequence of discourse needs:

> The notion of Emergent Grammar is meant to suggest that structure, or regularity, comes out of discourse and is shaped by discourse as much as it shapes discourse in an on-going process. Grammar is hence not to be understood as a pre-requisite for discourse, a prior possession attributable in identical form to both speaker and hearer. [. . .] Moreover, the term Emergent Grammar points to a grammar which is not abstractly formulated and abstractly represented, but always anchored in the specific concrete form of an utterance. (Hopper 1987: 142)

> . . . the concept of grammar as emergent suspends provision for fixed structure, and sees all structure as in a continual process of becoming, as epiphenomenal, and as secondary to the central fact of discourse. (Hopper 1992: 366)

This view was already beginning to crystallise in the early work of Hopper & Thompson on transitivity (1980) and on word classes (1984), both seen as deriving from their characteristic discourse functions:

> In general, then, we suggest that phrasocentric ('sentence-level' or sentence-internal) accounts of morphosyntax can have only a provisional and incomplete validity, and that a fully coherent theory of language must begin at (and not merely include) the level of discourse MOTIVATION for individual sentences.
> (Hopper & Thompson 1980: 295)

> . . . far from being 'given' aprioristically for us to build sentences out of, the categories of N and V actually manifest themselves only when the discourse requires it. Such a perspective may help remind us that questions of the relationship between language and mind can be approached only by considering language in its natural functional context. (Hopper & Thompson 1984: 747–748)

As Hopper (1992: 366–367) points out, an important consequence of the emergent grammar viewpoint is that the study of grammar itself is no longer central to linguistics; rather, the core study would be that of the process of **grammaticalisation**, by which certain forms available in the service of discourse become, in Hopper's words, " 'sedimented' through repeated use", so that they become recognised as 'grammatical' to varying degrees.

2.6.3 The centrality of semantics and pragmatics, and the motivation of syntax

The centrality of semantic and pragmatic/discoursal phenomena is abundantly clear on almost any page of works by Givón, Hopper or Thompson. For instance, Givón, in his two-volume work on syntax, organises his material in terms of the three 'functional realms' coded by syntax: lexical semantics, propositional semantics and discourse pragmatics (Givón 1984a: 30). He refers (Givón 1984a: 8–9) to his approach as "pragmatically-based".[11] His book *Mind, Code and Context* (Givón 1989) is subtitled 'Essays in Pragmatics', and a considerable proportion of it is concerned with the coding of essentially pragmatic concepts such as definiteness, topicality, and propositional modalities. The emergent grammar view of Hopper and Thompson is clearly deeply rooted in discourse pragmatic phenomena.

2.6.4 The cognitive dimension

WCF linguists have paid a great deal of attention to the cognitive dimension of language. Givón nails his colours firmly to the mast in the following passage:[12]

> We will continue to assume here that language and its notional/functional and structural organization is intimately bound up with and motivated by the structure of human cognition, perception and neuro-psychology. (Givón 1984a: 11)

Givón is committed to "taking cognition and neurology seriously" (1995: 16), and believes that if functional linguists are to invoke cognition in explanation of linguistic phenomena, they have a duty to familiarise themselves with the relevant cognitive literature. Very frequently, in Givón's work, we find serious attempts to demonstrate the cognitive plausibility of communicative functions and their coding in language (see, for example, the discussion of the distribution of grammar in text, in Givón 1995: Chapter 7, or the cognitive interpretation of textual coherence in Chapter 8 of the same book).

Givón's work faces head-on the fact that biological organisms have to process complex, multi-dimensional and often scalar input to their cognitive and perceptual systems through relatively discrete structural elements. In terms of language, this means that the organism has to code information from the continuous, multi-dimensional space of the functional domains referred to above, in terms of elements such as morphemes, particular constituent orders, and contrasting intonation patterns, which are either there or not

11. In the second, very substantially revised edition of *Syntax*, Givón (2001a, 2001b) deliberately pays much more attention to accounting explicitly for the more formal aspects of syntactic structure as well as functional motivation and typological diversity. Nevertheless, he still distinguishes three concentrically-arranged levels, those of the conceptual lexicon, propositional information and multi-propositional discourse, and writes of "the realization that the bulk of the machinery of grammar was deployed in the service of discourse pragmatics" (2001a: 7).

12. In the second edition of *Syntax*, Givón (2001a) distinguishes the two subsystems of human communication as the cognitive representation system and the communicative coding system, thus still underlining his commitment to the centrality of cognition.

there, and are relatively discrete (Givón 1984a: 36). In order to account for the ability of human beings to solve this dilemma, Givón makes considerable use of the concept of prototype, as developed by Rosch and others.

Hopper and Thompson's emergent grammar view also appeals to the concept of prototype:

> It is clear that the concept of prototypicality (the centrality vs. peripherality of instances which are assigned to the same category) plays an important role in the study of grammar. (Hopper & Thompson 1984: 707)

For instance, in discussing the property of transitivity, they claim that it

> is a continuum along which various points cluster and tend strongly to co-occur. (Hopper & Thompson 1980: 294)

and in their work on lexical categories, they interpret the notion of categoriality as "the property of being a prototypical instance of the grammatical category" (Hopper & Thompson 1984: 710).

2.6.5 Text and its relationship with context

It will be clear from the discussion in the foregoing sections that WCF linguists are centrally concerned with text/discourse phenomena. Chapter 7 of Givón's (1995) *Functionalism and Grammar*, for example, is a useful discussion of the necessity, but also the dangers, of a methodology which involves the study of communicative use via the distribution of grammatical features in texts. A particularly prominent example of this type of work can be found in the numerous discussions of topic continuity and referent tracking in texts which occur in the work of Givón and his colleagues (see e.g. Givón 1983). Hopper and Thompson's emergent grammar, of course, takes discourse as central in explaining why certain forms become grammaticalised.

2.6.6 Typological considerations

Givón's work has a strongly typological orientation: the subtitle of his *Syntax* (1984a, 1984b) is 'A functional-typological introduction'.[13] He articulates a clear position on typological diversity and language universals:

> While recognizing cross-language typological diversity, most functionalists remain committed to the existence of language universals, presumably both of meaning/function and grammatical structure. But the universals we propose, at whatever level, must be based on a study of representative diversity of types. (Givón 1995: 17).

and sets out a programme for a functionalist approach to grammatical typology.

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13. The subtitle of the 2001 version of *Syntax* is simply 'An introduction'; however, the centrality of functional and typological issues is clear in the title of the first chapter of Volume I ("The functional approach to language and the typological approach to grammar") and continues to be evident throughout the work.

The work of Hopper and Thompson has also raised typological issues. In their work on transitivity and on word classes they based their claims on the analysis of a wide variety of language types, and so were able to propose a high degree of general validity for their claims, as well as showing how the motivation of grammar by discourse works in languages of various types.

Other linguists such as Haiman and Croft are, as we saw in Chapter 1, strongly typological in their orientation.

2.6.7 Language acquisition

In the first version of his *Syntax*, Givón is scathing in his condemnation of Chomsky's innateness theory:[14]

> … the actual facts of language acquisition were not approached with even a hint of empirical integrity. It was assumed from the start that input – linguistic, functional, pragmatic – played a minimal role in the emergent language system. Equally, communicative function was disregarded as a variable in language acquisition, as were the socio-cultural-pragmatic context and "generalized cognitive capacities". What remained was an impoverished caricature of the acquisition of "formal structures" guided deterministically by an in-built genetic-neural structure referred to as "universal grammar". (Givón 1984a: 8–9).

He himself takes a constructionist stance in relation to language acquisition:

> … a more careful analysis of the early stages of first language acquisition […] suggests that children do not first acquire "syntax" in Chomsky's sense, but rather a *communicative system* of a much more rudimentary sort; and only later they modify it, gradually, into "syntax". (Givón 1979: 22, emphasis in original)

A viewpoint similar to that of the proponents of emergent grammar has recently been expressed by MacWhinney (1998, 1999) in relation to language acquisition. MacWhinney explores how linguistic form emerges, not from the requirements of discourse, but from the action of neural networks. The implication, however, is similar to that of Hopper and Thompson's work, namely that grammar can be seen as a type of organisation which, rather than being essentially innate, emerges from more general functional pressures.

2.6.8 Summary

The positions taken up by WCF linguists, as represented by Givón and by Hopper and Thompson, can be summarised as follows:

- there is a strong commitment to the study of language as communication;
- the autonomy of the linguistic system is decisively rejected, in favour of competing functional motivations – in Croft's terms, WCF linguists are integrative functionalists;

14. Interestingly, the 2001 version of *Syntax* makes no reference to language acquisition.

- the degree to which syntactic form is motivated by semantic and discourse function varies from one linguist to another: scholars such as Hopper and Thompson are in favour of an approach in which grammar is not treated as a structural system but is claimed to emerge from the requirements of discourse; Givón, on the other hand, still believes firmly in the reality of formal structure;
- text/discourse is central to WCF approaches;
- the importance of cognitive phenomena is a major feature of these approaches;
- typological considerations are high on the WCF agenda;
- a constructionist approach to language acquisition is taken.

2.7 Cognitive Grammar

The approach chosen here to represent the wider field of 'cognitive linguistics' (see e.g. Ungerer & Schmid 1996) is Cognitive Grammar, as put forward by Langacker (1987, 1990[2002], 1991, 1999), which explicitly identifies itself as an approach to grammar as such, and has been worked out in considerable detail, building on much other work in cognitive linguistics.

2.7.1 Language as communication

Langacker (1987:46) states that CG is "a **usage-based** theory" (emphasis in original). A particular instance of language usage is envisaged by Langacker (1987:65) in terms of the task of finding appropriate linguistic expression for a conceptualisation. This task is subject to a number of constraints, including the amount of detail required, the wish to emphasise particular aspects of the conceptualisation, the social relationship between addressor and addressee, assessment of the addressee's state of knowledge about what is to be communicated, the relationship of what is to be communicated with what has already gone on in the discourse, the intended effect on the addressee, and toleration of deviation from linguistic convention.

2.7.2 The rejection of the autonomy of the grammar, in favour of functional explanation

CG decisively rejects the claim that the linguistic system is autonomous. Not surprisingly, in view of the explicitly cognitive nature of the grammar, the kinds of functional explanation to which Langacker refers are primarily cognitive rather than social:

> Cognitive grammar [...] asserts that linguistic structure can only be understood and characterized in the context of a broader account of cognitive functioning. (Langacker 1987:64)

2.7.3 The centrality of semantics and pragmatics, and the motivation of syntax

CG is fundamentally opposed to the autonomy of syntax:

> Grammar (or syntax) does not constitute an autonomous formal level of representation. Instead, grammar is symbolic in nature, consisting in the conventional symbolization of semantic structure. (Langacker 1987: 2)

For CG, meaning is central:

> From the symbolic nature of language follows the centrality of meaning to virtually all linguistic concerns. Meaning is what language is all about; the analyst who ignores it to concentrate solely on matters of form severely impoverishes the natural and necessary subject matter of the discipline and ultimately distorts the character of the phenomena described. (Langacker 1987: 12)

Langacker (1987: 34–40) points out that many phenomena which are of little or no interest to a formal grammarian are central to CG. Chief among such phenomena are matters of figurative language and conventionalised expressions such as idioms, formulaic expressions and frequent collocations. Cognitive linguists, particularly Lakoff and his colleagues, have demonstrated that metaphor, far from being peripheral, is all-pervasive in language (see e.g. Lakoff & Johnson 1980). In CG, no clear distinction is drawn between literal and figurative language, or between idiomatic and non-idiomatic expressions: all are claimed to be accounted for naturally in terms of a theory within which lexical units, morphological elements and syntax are viewed as a continuum of symbolic units which are available for the structuring of conceptualisations. Furthermore, CG claims that much of grammar itself is figurative, in that it structures the 'content' in particular ways corresponding to different viewpoints, or 'images'. For instance, the English active/passive alternation, or 'dative shift' in sentences such as *He sent a letter to Susan* and *He sent Susan a letter* (Langacker's (13a, b), 1987: 39), present different images of the 'scene' concerned.

As CG is a usage-based grammar, it is necessarily the case that phenomena of a pragmatic nature are important to it. Indeed, Langacker (1987: 157) makes it clear that what he calls "the semantic pole of a usage event" is the contextual meaning of an expression, which includes everything that is relevant in the situation of use. Thus Langacker does not wish to postulate a separation between semantics and pragmatics, or between linguistic and extralinguistic knowledge, preferring an encyclopedic view of meaning (1987: 154–158).

2.7.4 The cognitive dimension

As we have seen, CG takes the cognitive dimension as paramount. This inevitably means acceptance of non-discreteness in language:

> Much in language is a matter of degree. Linguistic relationships are not invariably all-or-nothing affairs, nor are linguistic categories always sharply defined and never fuzzy around the edges. (Langacker 1987: 14)

Langacker favours a prototype model of non-discreteness, believing that it "has considerable linguistic and cognitive plausibility" (1987: 17).

2.7.5 Text and its relationship with context

There is little in Langacker's work, or in that of others working within the CG framework, to suggest an interest in the description of text as such, or in formulating models of the structure of discourse. This is unfortunate, given the fact that CG is a usage-based theory, and that context-dependent meaning is specified as the semantic pole of a symbolic structure. CG is, however, concerned with the importance of the 'deictic centre', itself a contextual element, as well as with the relationship between meaning and contextually-identified domains.

2.7.6 Typological considerations

CG does not explicitly stress typological adequacy as an aim. It tends to stress the differences rather than the similarities between languages, believing that the lexical and grammatical resources for the expression of conventional imagery differ widely among languages (Langacker 1987: 47). It is, however, claimed that CG can reveal universal aspects of linguistic organisation.

2.7.7 Language acquisition

Langacker has rather little to say in general terms about language acquisition, although he does, at various points, illustrate how CG might provide a reasonable explanation of the acquisition of particular aspects of the linguistic system (see e.g. 1987: 349–350, 373–375, 382–383). A constructionist approach would clearly be most consistent with the tenets of the theory.

2.7.8 Summary

The position of Cognitive Grammar in relation to the points under discussion may be summarised as below:

- it is a usage-based theory, and so is concerned with language as communication, and in fact gives a great deal of emphasis to certain communicative devices, such as metaphor, which are peripheral to most other approaches;
- it rejects the claim that the linguistic system is autonomous, and postulates underlying motivating factors of a largely cognitive nature – it is integrative, in Croft's terms;
- it firmly rejects the claim that syntax forms an autonomous level, regarding it as the symbolic link between semantics and phonology;
- meaning is central to CG, though any clear distinction between semantics and pragmatics is rejected;

- CG has not given much attention, as yet, to the structuring of text or to text/context relationships;
- cognitivism is a fundamental aspect of the approach;
- CG does not stress typological adequacy;
- CG does not build in a theory of language acquisition, though some evidence is presented that the claims of CG provide plausible explanations for the acquisition of particular linguistic phenomena.

2.8 Summary: towards a characterisation of structural-functional grammars

Table 2.1 below summarises my own assessment of where each approach stands in terms of the seven factors listed earlier in this section.

Generative Functionalism differs radically from the other approaches in its acceptance of autonomous grammar, and it is not clear that the central aim is to explain how languages are structured in order to achieve inter-human communication, although generative functionalists do pay some attention to certain aspects of text structuring, such as anaphoric relations.

Hopper and Thompson's emergent grammar approach differs from the others in that it denies the importance of a fixed formal structure, seeing this as an epiphenomenon of discourse.

CG differs from all the other approaches in that it is based entirely on cognitive principles.[15] Indeed, Langacker defines the grammar of a language as

> . . . those aspects of cognitive organization in which resides a speaker's grasp of established linguistic convention (Langacker 1987: 57).

Furthermore, although cognitive linguistics shares many of the underlying principles of functionalism, cognitivists tend to see their work as rather different in orientation from that of functionalists. For instance, Langacker himself, while recognising the close link, es-

15. This is even more clearly so for Lamb's 'neurocognitive linguistics' (Lamb 1999), which he opposes to 'analytical linguistics', under which heading he includes many approaches which have styled themselves as 'cognitive' but which, according to Lamb (1999: 13), live up to that label only in that they deal with conceptual or semantic information, while neurocognitive linguistics has as its aim the unravelling of the mental structures responsible for the external phenomena studied in analytical linguistics. It is interesting to note, however, that Lamb's purely relational model, which, as a model of language, used to be known as 'stratificational linguistics' (see e.g. Lamb 1966; Lockwood 1972), a label still used by some of its adherents, has much in common with Halliday's Systemic Grammar, a fact that is readily recognised by the two leading exponents of the theories (see e.g. Lamb 1999: 383; Halliday 1978: 51). The stratificational approach to language itself would thus make an interesting object of comparison with SFG, at least: however, the strongly neurocognitive direction in which the theory has recently been taken by Lamb distances it considerably from SFG. Similarities of aims between CG and SFG have been suggested by Lemmens (1998: 13–14).

Table 2.1. Six approaches to language rated on seven properties

Approach	Language as communication	Rejection of autonomy of linguistic system, in favour of functional explanation	Centrality of semantics/pragmatics; rejection of autonomy of syntax	Centrality of text/context	Centrality of cognitive dimension/non-discreteness	Centrality of typological considerations	Constructionist approach to language acquisition
Generative functionalism	–	–	–	*	–	?–	–
FG	***	***	***	**(a)	**(b)	***	**
RRG	***	***	***	*	*	***	***
SFG	***	***	***(c)	***	*(d)	*	***
WCF	***	***(e)	***	***	***	***	**
CG	***	***	***	*	***	*	*

Key:

*** This property is absolutely central to the approach.

** This property is stated as a tenet of the approach, but little work has yet been done in this area **and/or** the work which has been done is very recent.

* This property is present in some work within the approach but not all **or** is implicit rather than explicit in the approach.

– This property is not at all central to the approach.

(a) Models of discourse have only recently been incorporated into FG, but are fast gaining importance.

(b) Non-discreteness is addressed only in some very recent work in FG; similarly, attempts to increase psychological adequacy by taking account of processing considerations are only just coming to the fore.

(c) SFG tends to merge properties which other approaches would regard as syntactic, semantic and pragmatic, but matters of meaning are paramount for this approach.

(d) Indeterminacy is seen as basic to language, but because of this is not foregrounded in the theory. There is little reference to cognitive principles in explaining linguistic phenomena: rather, cognition is approached through language.

(e) Functional explanation is taken to extremes in the 'emergent grammar' approach of Hopper and Thompson.

pecially with West Coast functionalism, differentiates clearly between 'cognitive grammar' and 'functional studies':[16]

> If cognitive grammar provides a unified way of describing the complete spectrum of linguistic structures, functional studies allow us to determine and explain their relative prototypicality. (Langacker 1987: 4)

Van Valin also draws a distinction between cognitivism and functionalism:

> Cognitivism and functionalism represent complementary approaches to the study of language, each with a rather different focus: all functionalists are concerned with the impact of pragmatics (however it is conceived) on grammar, while cognitivists strive to show that grammatical phenomena are reflections of deeper cognitive and conceptual processes. (Van Valin 1991b: 6)

Rispoli (1999: 221–222), defining the difference between functionalism and formalism exclusively in terms of the integral nature of semantic and pragmatic constructs in explicating and explaining the grammar in functionalism, as opposed to the extraneous nature of these constructs in formalism, states that under these definitions "cognitive approaches cannot be classified as functionalist", presumably on the grounds that although cognitive linguistics does indeed consider meaning and use crucial, the ultimate underlying explanatory principle is the structure and functioning of human cognition.

We may conclude, then, that cognitive theories, while compatible with functional approaches, are different enough from them to be excluded here. This is in no sense intended to marginalise cognitive approaches: indeed, as we have seen, one of the properties which I have pointed to as present to varying degrees in functional approaches is attention to the cognitive dimension of language. Furthermore, Langacker himself (1987: 6) lists, among the linguists whose work he considers to be basically compatible with CG, scholars from both Generative Functionalism and WCF. The exclusion of cognitively-based approaches from detailed consideration in the present book is based on the differences outlined above, and also on the practical impossibility of dealing with more than a very few theories in one work. A detailed comparison of cognitive and functional approaches would be a welcome addition to the literature, as noted above in relation to Lamb's stratificationally-based neurocognitive model.

Leaving CG out of account, we may place the other approaches on a scale from 'most like formalist grammars' to 'radical functionalist' roughly as in Figure 2.1 below.[17,18] Ar-

16. Despite this, Croft (1999: 88) appears to wish to classify Cognitive Grammar as a functional theory.

17. It is interesting to note how different surveys of functionalism, written from different viewpoints, include or exclude particular approaches: for instance, Tomlin (1994), associated with WCF, does not mention RRG, while Rispoli (1999), who uses RRG in his own work on language acquisition, makes no reference whatever to the work of Halliday.

18. Van Valin (2000: 331–332), who includes in his discussion all four of the approaches labelled as structural-functionalist in Figure 2.1, regards SFG as falling between moderate and extreme functionalism,

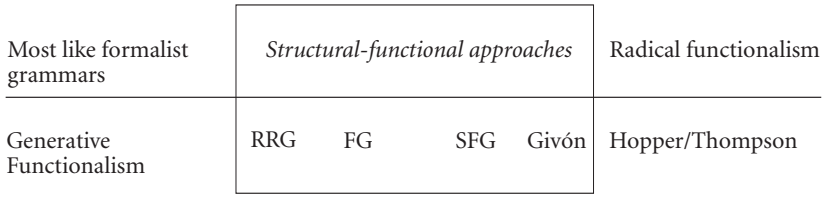

Figure 2.1. A scale of functionalism

guably, FG, RRG, Givonian WCF and SFG can be seen as a central core, with a number of shared properties:

- a central concern with language as communication;
- the rejection of the claim that the linguistic system is autonomous with respect to external function;
- acceptance of the importance of grammatical form – in other words, they are structural-functional approaches, as indicated in Figure 2.1;
- the centrality of semantic/pragmatic phenomena and the motivatedness (to varying degrees in different approaches) of syntax;
- a constructionist approach to language acquisition.

Note, however, the following differences:

- The four approaches differ considerably in their commitment to a cognitive orientation: work within WCF such as that of Givón makes this commitment strongly; FG has begun to take cognitive matters seriously; RRG makes a theoretical commitment to cognitive adequacy which so far has not come through strongly in practice; and mainstream SFG, while treating indeterminacy as a natural feature of language, for this very reason does not foreground it. Furthermore, in SFG cognition is explained in terms of language, rather than *vice versa*.
- The four approaches also differ in their commitment to a functional account of text structure and text/context relations: here, SFG has the strongest commitment; that of WCF is also strong; recent work in FG has begun to build models of discourse structure; while RRG, although very much concerned with, for example, clause linkage, has no submodel of discourse and is not concerned with relationships between text and social context.
- FG, RRG and WCF have a strong commitment to typological adequacy, but this has not been a priority for SFG during most of its development, although there have been recent indications of greater interest.

There is, however, one further factor which is crucial to the selection of approaches for detailed consideration in this book. FG, RRG and SFG are all generative grammars, in the

in view of its strongly discourse-oriented nature. He recognises, however, that this theory does not deny the reality of structure. Overall, then, his position is not incompatible with that represented in Figure 2.1.

sense that they provide (at least potentially) an explicit framework of rules and principles, linked in specified ways, by means of which the structure and interpretation of linguistic expressions can, in principle, be exhaustively described.[19] Of course, we are not yet in a position to claim that we can describe text fragments of any language exhaustively under any of these approaches. Nevertheless, each provides an (incomplete and provisional) integrated framework for linguistic description and, crucially, they provide explicit rules, formalised to varying degrees, linking meanings with forms.[20] This is not, however, the case for Givón's functional approach, and the reasons for this are clear from the following quotation from Volume I of the original version of Givón's *Syntax: A Functional-Typological Introduction*:[21]

> I have been accused in the past of not presenting a "complete framework" for syntactic description [...]. "Framework", "format", "theory" and "Grammar" are words that have been much maligned in the past three decades in linguistics. Ever since the Bloomfieldians, such labels have meant, more likely than not, the closing of one's horizons and the wedding of oneself to a restrictive, counter-empirical and anti-explanatory formalism. Such formalisms foster the illusion of science by downgrading its open-ended, tentative and ongoing nature. My own bias has been, for many years, that such premature closure, completeness, consistency and formalization are both unnecessary and unwise. (Givón 1984a: 25)

There is much in this view which would be congenial to Halliday also; nevertheless, unlike Givón, Halliday does present, in his Systemic Functional Grammar, an apparatus which, while not perhaps being as heavily formalised as that of FG or RRG, does allow the generation of full sentence structures.[22] Furthermore, he makes it clear that his intention is to construct a grammar, in the sense of a fully explicit generative device:

> The grammar needs to be explicit, if it is to go on being useful: it must be possible to generate wordings from the most abstract grammatical categories by some explicit set of intermediate steps. (Halliday 1994b: xix)

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19. Note that I am not using the term 'generative' here in the sense of 'production-oriented': any adequate functional grammar will have to take into account both production and understanding. Neither am I using it purely in the sense of 'explicit', important as this criterion is: as McGregor (1997: 9) observes, "[p]resumably a quality all theories aspire to is that they be as precise and explicit as possible". The crucial criterion is that the explicitness must be such as to allow us to map all the various aspects of both structure and function and their relationships by means of a clearly stated set of interlinked rules and principles.

20. As we shall see, there is much more divergence in these approaches with regard to their ability to specify discourse structures.

21. The heavily revised second edition of *Syntax* does not include any statement of this kind: indeed, Givón (2001a: 27–29) makes it very clear that he does indeed accept that language is rule-governed, though not 100%. Nevertheless, he does not provide an integrated set of rules of the kind which characterise a grammar in the sense intended here.

22. Indeed, as will be described in Chapter 5 of Part 2, SFG has been implemented in computer systems for natural language generation and parsing.

Whatever the merits of Givón's position, it characterises his work as an approach to linguistic theory and description, rather than a grammar in the sense intended here. This makes his work rather difficult to compare directly with that in FG, RRG and SFG.[23]

In the remainder of this book, then, in the interests of consistency and manageability, I shall concentrate on FG, RRG and SFG, as the three outstanding examples of **structural-functional grammars** which have given rise to substantial bodies of work. I shall, however, refer occasionally to other approaches, where it is helpful to relate structural-functional grammars to functionalism as more widely conceived.

The next three chapters begin our exploration of these three approaches by looking in rather more detail at their underlying aims and assumptions and then examining how each theory specifies the structure of the simplex clause. This will involve us in the exploration of answers to the following questions:

- what relationship (if any) between semantic, syntactic, morphological, lexical and prosodic patterning is postulated?
- what are the mechanisms for specifying clause structures?
- are any layers/levels of structure proposed?
- what information (if any) about structural functions (syntactic, semantic, pragmatic) is built into the structures proposed?

By and large, these three chapters will be concerned with exposition rather than with critical evaluation of the three approaches (except where such criticism has come from within the theory itself), critical comparison being reserved for Chapter 6.

23. It is worth noting that Lamb's current relational network model (though perhaps less the Stratificational Grammar of the 1960s) might also be excluded here, not only on the basis of the nature of its primary aim (to construct a model of the human cognitive system), but also because it also does not offer a grammar in the sense intended in this discussion. Similarly, Langacker (1987:64) states that Cognitive Grammar "does not consider the grammar a **constructive** device" (emphasis in original), and this is a further reason for excluding it from the range of theories discussed in the present book. Two other approaches worthy of mention here are McGregor's Semiotic Grammar and the Communication Linguistics of Gregory and his colleagues: both are explicitly non-generative, and would therefore not qualify for the set of grammars considered in detail in this book. Nevertheless, as both arose out of SFG and are still closely linked to that theory in many ways, they are allocated short sections of their own in Chapter 5.