

2 The Stance of Systemic Functional Linguistics Amongst Functional(ist) Theories of Language and Its ‘Systemic’ Purpose

Jacques François

The purpose of this chapter is to evaluate the place of Systemic Functional Linguistics (SFL) against two different backgrounds, which offer two different but related perspectives on the theory. The first of these concerns the place of SFL within the broader history of functional theories of language. The second considers SFL in relation to the concept of ‘system’/‘systemicity’ as developed in von Bertalanffy’s *General System Theory* or systemics (1968, 1972). These two theoretical perspectives on SFL are presented in what follows over four main sections.

The first section shall be devoted to an overview of nine decades of functional theories of language. Three periods are to be distinguished: first from the 1920s to the 1960s with four main centres of research in Prague, Vienna, Geneva and Paris; then the period of the 1970s and 1980s with a displacement of the main poles from Prague and Paris towards London, Amsterdam, Buffalo and the US West Coast; and finally from the 1990s to the 2010s with a wide spreading of research topics pertaining to two opposite variants of linguistic functionalism, on the one hand the theory of ‘INTERNAL functionalism’, taking only grammatical functions into account, and on the other hand that of ‘EXTERNAL functionalism’, dealing with pragmatic pressures as well.

In the second section, I will investigate the stance of SFL amongst structural-functional language theories, first identifying the spectrum of present linguistic functionalism and, second, focusing on so-called structural-functional theories, that is, SFL, the Dutch Functional Grammar and Role and Reference Grammar. Then in section 3, I consider SFL from the following two perspectives, Jackendoff’s (structurally oriented) Parallel Architecture and Langacker’s (non-structurally oriented) Cognitive Grammar. It is only by comparison that we can appreciate the ambition of ‘systemicity’ in SFL. The fourth section explores the systemic ambition of SFL, first by evoking *General System Theory* in its relationship to cybernetics, and then by pointing to the genesis of linguistic systems in the theory of emergent grammar. The chapter ends with a brief reflection on the systemicity of SFL.

1. Nine Decades of Functional(ist) Theories of Language (1929–2014)

1.1. From the 1920s to the 1960s

The first functionally oriented linguistic theories seem to appear in the early part of the 20th century with on the one hand the “thèses du cercle de Prague” in 1929 and in the same year the anticipatory work of the Swiss linguist Henri Frei entitled *La grammaire des fautes* with a very explicit sub-title: *Introduction à la linguistique fonctionnelle, assimilation et différenciation, brièveté et invariabilité, expressivité*.¹

In the next decade, three linguists firmly established the domain of functional linguistics in three rather different directions, first Karl Bühler, a pioneering psycholinguist at the University of Vienna with his *Sprachtheorie* in 1934, which set down the foundations of linguistic pragmatics; then Charles Bally, a former colleague of Ferdinand de Saussure in Geneva, with *Linguistique générale et linguistique française* (1936), which developed the notion of ‘functionally equivalent expressions’ in every language (the topic of ‘internal linguistics’) and between languages (that of ‘external linguistics’); and Nicolai Troubetzkoy in Prague with the groundbreaking *Principles of Phonology* (1939).

In the 1950s, they were followed by three influential linguists interested in language comparison and evolution, namely Roman Jakobson, first in Prague and from the 1940s on at Harvard, studying child language and aphasia from the point of view of functional phonology (1941) and developing a linguistic theory of translation (1959); André Martinet, the author in 1955 of *L'économie des changements phonétiques*² following Trubetzkoy's functional phonology (then in New York and in the 1960s in Paris); and Eugenio Coseriu, teaching in Montevideo and from the 1960s on in Tübingen, the proponent of a functional view of grammar diverging from Saussure's doxa by introducing the concept of (usage) norm between system and speech (1952) and rehabilitating the study of the evolution of language structures between synchronic stages (1958). At the same time, J. R. Firth founded the London School of Linguistics, which was to be the cradle of SFL, moulding the crucial notions of ‘system’ and ‘restricted language’ (renamed as ‘register’ by M. A. K. Halliday) and proposing categories devoted to analysing “contextually situated language events” (Léon, 2007).

1.2. In the 1970s and 1980s

This second period is characterized by the developing study of the functional structure of the sentence in Prague by Jan Firbas and Peter Sgall, whose conclusions about the distribution of theme, rheme, topic and focus become a significant part of Simon Dik's *Theory of Functional*

8 Jacques François

Grammar in Amsterdam (1978, 1997) and are later best theorized in the work of Knud Lambrecht, *Information Structure and Sentence Form*, in 1996.

At the same time in Paris, Martinet developed his conception of functional syntax (1975), whereas Michael Halliday published in 1973 his *Explorations in the Functions of Language*, soon followed by his seminal work on syntax at the text level, *Cohesion in English* (in 1976 together with Ruqaiya Hasan).

Two years later, in 1978, Dik published the first outline of his *Functional Grammar*, thus founding the Dutch School of Functional Grammar, whose views were soon disseminated through Benjamin's *Functional Grammar Series* and the Amsterdam *Working Papers in Functional Grammar*. Some years later, in 1984, William Foley and Robert Van Valin set down the foundation of Role and Reference Grammar in their work *Functional Syntax and Universal Grammar*.

At this same time, Christian Lehmann, who was then the main collaborator of Hansjakob Seiler in the research team UNITYP (Language Universals and Typology) in Cologne, wrote in 1982 his *Thoughts on Grammaticalization*, a crucial milestone in the genesis of external (or non-structural) linguistic functionalism, whose main proponent in Germany was to be Bernd Heine in the next decade.

In 1979 Talmy Givón noted in *Understanding Grammar* that “today's morphology is yesterday's syntax”, a view already suggested by Franz Bopp, the main founder of the comparative grammar of Indo-European languages in the first half of 19th century in his so-called agglutination theory. And five years later Givón established the founding principles of the functional typology of languages in his *Syntax: A Functional Typological Introduction* in two volumes (1984–1990), followed by a fully revised second edition in the next decade.

1.3. *From the 1990s to 2010s: Internal vs External Functionalist Theories of Language*

The last decade of the 20th century is the most exciting for the simultaneous strengthening of internal (or structural) functionalism, mostly in Europe, and the blossoming of external (or non-structural) functionalism, mostly on the US West Coast and in Germany.

This period is marked by the publication of the second edition of Michael Halliday's *Introduction to Functional Grammar* (First ed. 1985) for SFL and of Kees Hengeveld's *Non-Verbal Predication* in 1992, a milestone in functional typology of languages in the FG vein, together with the post-humous publication by the same Hengeveld of the second volume of Dik's *Theory of Functional Grammar* in 1997, and for RRG by the publication of Van Valin's *Advances in RRG* and especially of *Syntax: Structure, Meaning*,

and *Function* together with Randy LaPolla in 1997, which quickly became the seminal work of the emerging community of RRG researchers centred in Buffalo.

Concerning the external vein of linguistic functionalism, Hansjakob Seiler together with Walter Premper published a crucial work in 1991 which was devoted to the dimension of participation and explained how every language organizes the predicate frames (or argument structures) as a result of the competition and cooperation of linguistic and extraneous pressures, whereas his younger colleague in Cologne, Bernd Heine, began an exploration of *The Cognitive Foundations of Grammar* (1997a), studying first auxiliariation in 1993 and then the grammatical expression of possession in 1997b.

At the same time (more exactly from 1986 on), the domain of cognitive linguistics was enriched by ‘construction grammars’ (by Charles Fillmore and Paul Kay, George Lakoff, Adele Goldberg (2006), William Croft (2001), etc.), while ‘usage-based theories of language’ (by Ronald Langacker, Bryan MacWhinney, Joan Bybee, etc.) flourished in the USA, especially at West Coast universities.

A crucial publication at the beginning of the new millennium, in 2003, is Chris Butler’s *Structure and Function—a Guide to Three Major Structural-Functional Theories* in two volumes, the first devoted to the SFL, FG and RRG approaches to the simplex clause, and the second to the complex sentence, the discourse dimension and the high or low integration of psycholinguistic and sociolinguistic aspects. Butler’s ambitious comparison is soon reinforced by the publication of the third edition in 2004 and the fourth in 2014 of Halliday’s *Introduction to Functional Grammar*, from then on in collaboration with Christian Matthiessen; by that of Hengeveld’s and MacKenzie’s *Functional Discourse Grammar* in 2008; and by Van Valin’s *Exploring the Syntax-Semantics Interface* in 2006. Conversely, these works urged Butler, together with Francisco Gonzalez-Garcia, to the publication in 2014 of *Exploring Functional-Cognitive Space*, a work based on a questionnaire submitted to all the major representatives of functional linguistics about the modelling of language systems by universal cognitive features and thus exploring the overlapping and affinity between the functional typology of language on the one hand and cognitive linguistics on the other hand.

Concerning the diachronic and typological orientation of external functionalism, Bernd Heine published in 2002 together with Tania Kuteva a *Word Atlas of Grammaticalization* that summarizes two decades of research on that topic across hundreds of languages, and in 2011 Heine edited in collaboration with Heiko Narrog a state of the art volume with their *Oxford Handbook of Grammaticalization* based on the fascinating works of Paul Hopper, Elisabeth Traugott, Talmy Givón (2002, 2009), Joan Bybee, William Croft (2001), etc.

2. The Stance of Systemic Functional Linguistics Amongst Structural-Functional Language Theories

This section will briefly consider three main theoretical frameworks in terms of the domains of investigation they favour and those they presently neglect. Butler (2003) is the main reference³ for this multilevel comparison. Table 2.1, assembled according to Butler's observations, inventories the posture of SFL, Dik's FG and van Valin's RRG related to eight basic factors.

What ensures the comparability of these three theories representing internal functionalism is their similar stance concerning factors 1 (language viewed as a communicative rather than as a computational tool) and 8 (language acquisition envisaged from a constructionist point of view).⁴ Concerning factors 2 (the rejection of the autonomy, arbitrariness and/or self-containedness of language) and 4 (the centrality of meaning and the secondary place of syntax), the goals of Halliday, Dik and van Valin are rather similar. Three factors reveal a stronger similarity between FG and RRG against SFG:

- 3 concerning the integration of communicative competence, against its rejection in FDG;
- 6 related to the significance of psychological adequacy, against SFG's attempt to interpret cognition in terms of language;
- and 7 concerning that of typological adequacy, whereas SFG focuses on dealing with particular languages, English, French, Chinese, etc., without any commitment to typological generalizations.

And, finally, factor 5 (the textual orientation) brings SFG and FG closer only since DFG's development in Hengeveld and MacKenzie (2008), whereas RRG contends with focusing on three special components of discourse: information structure, clause connection and reference tracking.

A last distinctive factor must be highlighted: whereas the social background is a significant part of the description in SFG, it fails in FG and RRG.

Dirk Geeraerts emphasizes this distinctive feature of SFL:

Within the group of functionalist frameworks, Systemic Functional Linguistics is the one that most distinctly follows up on this SOCIAL CONCEPTION OF LANGUAGE. Thinking about language in social, interactional terms suggests that the systemic descriptive and theoretical framework might be particularly suited for socially oriented types of linguistic investigation.

(Geeraerts, 2010: 80)

Table 2.1 Eight factors outlining a cartography of the main interests of SFG, Dik's FG and van Valin's RRG (adapted from Butler, 2003)

[p. 48] <i>Systemic Functional Grammar</i> . . .	[p. 39–40] <i>Dutch Functional Grammar</i> . . .	[p. 43] <i>Role and Reference Grammar</i> . . .
1	• is centrally concerned with language as communication	
2	• rejects the autonomy of the linguistic system and takes the strong view that everything in the grammar is functionally motivated	• rejects the arbitrariness or self-containedness of the linguistic system
3	• rejects the concept of communicative competence	• favours partial motivation by communicative factors
4	• regards meaning as central (concept of a semantically oriented 'lexicogrammar')	• tries to account for the communicative competence of the language user, or, alternately, attempts to characterize communicative competence
5	• is text-oriented	• considers semantics and pragmatics as central to the approach, but recognizes syntax as one means for the realization of meaning
6	• is concerned with discourse-related matters in recent <i>Functional Discourse Grammar</i> (see Hengeveld and MacKenzie, 2008)	• places semantics and pragmatics at the heart of the model, but also has a (semantically motivated) syntactic component
7	• is committed to psychological adequacy resp. cognitively oriented explanation	• is concerned with information structure, clause connection and reference tracking
8	• interprets cognition in terms of language rather than vice versa	
9	• is little interested in typological adequacy	• emphasizes typological adequacy
10	• favours a constructionist approach to language acquisition (only a program in FG)	

3. SFL, Parallel Architecture and Cognitive Grammar in Contrast

The ambition of 'systemicity' in SFL may be appreciated only by comparing it to other theories that aim for systemicity too insofar as they focus on the linking between expression and content (in Hjelmslev's

12 *Jacques François*

terminology) or between syntax and semantics, as with Ray Jackendoff's theory of *Parallel Architecture* (1997, 2002) and Ronald Langacker's theory of *Cognitive Grammar* (2008).

The main difference between the two former views is that for SFL (see Halliday and Matthiessen, 2014), the whole linguistic apparatus builds a continuous hypersystem from phonemes to textemes, whereas Jackendoff extends the generative principle beyond the syntax upstream to phonology and downstream to conceptual semantics in the form of three generators operating in parallel, yielding a Parallel Architecture.

The difference between these two views and that of Cognitive Grammar is that according to Langacker the structures of human cognition 'inform' the grammar. In this conception, the challenge consists in accounting for the diversity of world languages despite the universal cognitive features permeating every grammar.

For, as Talmy Givón emphasizes (see 1995, pp. 439–443), the construal of a protolanguage is facilitated by iconicity, but, conversely, arbitrary linguistic signs are crucial for elaborating language structures having the power to free the working memory of the interlocutors and thus to allow fast and effective communication.

However, the three theories share a negative feature, namely their trifling involvement in the study of language dynamics. Actually Halliday and Matthiessen (2014, p. 68) evoke the topic of grammaticalization that they propose to deal with at three levels:

- a) that of language acquisition (ONTOGENETIC time)
- b) that of the evolution of language faculty (PHYLOGENETIC time), which they regard as unattainable for the linguist, and
- c) that of the discourse flow (LOGOGENETIC time), an original view but apparently restricted to the study of event anaphora.

(see 2014, p. 68)

And the authors conclude (p. 47):

So when we talk of the 'system' of language, as the underlying potential that is instantiated in the form of text, we are in effect theorizing a language as the outcome of ongoing grammaticalization in all these three dimensions of time.

As we will see in what follows, Jackendoff deals with the phylogenetic dimension suggested by Halliday and Matthiessen (see Jackendoff, 2002, pp. 231–266). It was this exploration that led in 2005 to a decisive article by Jackendoff together with Steven Pinker (see Pinker & Jackendoff 2005) as a reply to Hauser, Chomsky and Fitch (2002), who were trying to distinguish between Broad and Narrow Language **Faculties**. However,



concerning the dynamics of language, this is only explored in his work on the emergence of ‘Constructions’.⁵

In what follows, SFL is considered in a comparative perspective along with Jackendoff’s framework and Langacker’s cognitive theory.

3.1. Situating ‘System’ in SFL

Before moving on to the comparison of SFL to Jackendoff’s (structural) Parallel Architecture and Langacker’s (non-structural) cognitive linguistics, this section provides a brief overview of where system is situated with SFL theory. Halliday and Matthiessen draw five dimensions of language, as illustrated in Table 2.2 (2014, p. 20).

- STRUCTURES on the syntagmatic axis, hierarchized in a series of levels;
- SYSTEMS on the paradigmatic axis, categorized according to their delicacy with on the one hand the closed system of grammar and on the other hand the open system of lexis;
- STRATIFICATIONS, with various sorts of fulfilment (semantic, lexicogrammatical, phonological or phonetic);
- INSTANTIATIONS, specifying instances, types or potentials; and
- METAFUNCTIONS, categorized as ideational (subdivided into logical and experiential), interpersonal or textual.

SFL is labelled as **systemic** because the speaker is regarded—in Willem Levelt’s terms (1989)—as (1) a conceptualizer, (2) a formulator and (3) an articulator:⁶

the organizing principle adopted is that of **system**: the grammar is seen as a network of interrelated meaningful choices. In other

Table 2.2 The dimensions (forms of order) in language and their ordering principles

<i>Dimension</i>	<i>Principle</i>	<i>Orders</i>
1. structure (syntagmatic order)	rank	clause ~ group/phrase ~ word ~ morpheme [lexicogrammar] ; tone group ~ foot ~ syllable ~ phoneme [phonology]
2. system (paradigmatic order)	delicacy	grammar ~ lexis [lexicogrammar]
3. stratification	realization	semantics ~ lexicogrammar ~ phonology ~ phonetics
4. instantiation	instantiation	potential ~ subpotential/instance type ~ instance
5. metafunction	metafunction	ideational [logical ~ experiential] ~ interpersonal ~ textual

14 *Jacques François*

words, the dominant axis is the paradigmatic one: the fundamental components of the grammar are sets of mutually defining contrastive features.

(p. 49)

These system choices have to be **realized** because “the system . . . is the potential that lies behind the text” (p. 49). Analysing a text means showing the functional organization of its structure and especially “that meaningful choices have been made, each one seen in the context of what might have been meant but was not” (p. 24). Realization is “one manifestation of a general relationship that pervades every quarter of language” because “a language is a stratified system” (*ibid.*).

The basic architecture of SFL consists of three systems:

- The first is that of **theme**, concerned with the partition in theme vs rheme of the clause viewed as message (its textual metafunction). In the tradition of the “functional perspective of the sentence” elaborated by the Prague School of Linguistics (F. Danes, J. Firbas, P. Sgall), the theme is defined as “the orientation chosen for the message” (p. 43).
- The second is that of **mood**, concerned with the organization of the clause as an exchange instance. It is defined as “the primary interpersonal system of the clause—the grammaticalization of the semantic system of SPEECH FUNCTION” (2014, p. 142, footnote 5), and Halliday and Matthiessen comment on the various moods amongst which the speaker has to make a choice in a major clause (one involving a predicator in its structure):

A major clause is either indicative or imperative in MOOD, if indicative, it has a Finite (operator) and a Subject. An indicative clause is either declarative or interrogative (still in MOOD), if declarative, the subject comes before the Finite. An interrogative clause is either yes/no type or WH-type, if yes/no type, the Finite comes before the Subject, if WH-type is has a Wh element.

(2014, p. 23)

- The third is that of **transitivity**, concerned with the linguistic expression of process types at the level of the clause viewed as representation (its experiential metafunction). The clause represents a process together with its participants and circumstances, if any. This system displays two viewpoints, that of the impact of an agent against a patient (what R. Langacker, 2008, calls his “energy transfer”), and that of its semantic domain, either material, mental or relational.

Finally, Table 2.3 from Halliday and Matthiessen (2014, p. 83) summarizes the metafunctional and structural status of the three basic systems.

Table 2.3 Three lines of meaning in the clause

<i>Metafunction</i>	<i>Clause as . . .</i>	<i>System</i>	<i>Structure</i>
textual interpersonal	message exchange	THEME MOOD	Theme ^ Rheme Mood [Subject + Finite] + Residue [Predicator (+ Complement) (+ Adjunct)]
experiential	representation	TRANSITIVITY	process + participant(s) (+ circumstances), e.g. Process + Actor + Goal

By integrating the three textual, interpersonal and experiential metafunctions, SFL excludes any separation between semantics and pragmatics. For example, Halliday considers the information structure of the sentence as a major concern, as does the ‘functional sentence perspective’. This differs from Jackendoff’s ‘Parallel Architecture’ because Jackendoff, following Chomsky, holds a restrictive view of linguistics as the exploration of language competence, and leaves the study of language performance to the researchers in functional grammar, discourse analysis and sociolinguistics.

3.2. ‘System’ in Jackendoff’s *Parallel Architecture* (1997, 2002)

Jackendoff set the foundations of his theory in 1983 (*Semantics and Cognition*) by introducing a semantic generator beside the syntactic one. He referred to his bigenerative architecture as “X-bar semantics” in 1990 (*Semantic Structures*). Then in 1997 he completed his model (*The Architecture of the Language Faculty*) by adjoining a third phonological generator. Figure 2.1, adapted from his 2002 work, *Foundations of Language*, delivers the three ‘integrative processors’, interrelated through three internal interfaces between phonological, syntactic and conceptual structures. By mentioning the place of working memory and introducing dynamic external interfaces from audition, to vocalization and to perception and action, Jackendoff aims at implementing the parallel grammar as a ‘processing architecture’.

One major difference between this Parallel Architecture and Cognitive Grammar, which will be discussed below, is that whereas Jackendoff has incorporated a priori relations of mutual information between the three generative components (phonology, syntax and conceptual semantics), Langacker conceives of the lexicogrammatical system as essentially informed by universal cognitive structures, like those of spatiality, temporality, subjectivation or energy transfer modelling the systems of semantic roles, etc.). However, we will now return to the structural aspects

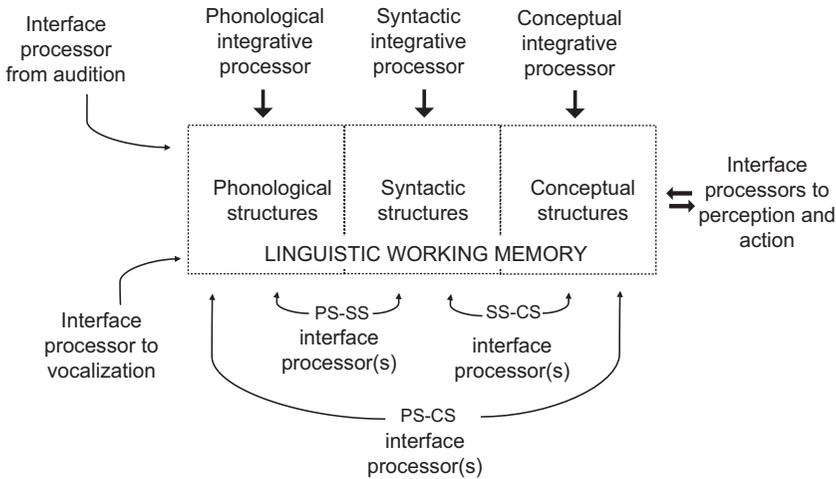


Figure 2.1 Jackendoff's Parallel Architecture (2002, p. 125)

of 'system' in SFL before considering the comparison with cognitive grammar.

3.3. Back to the Structuration of the 'Systems' in SFL

In relation to the 'integrative processors' of Jackendoff's Parallel Architecture, one must notice that the 'systems' of SFL turn out to be generative processors as well. However, they do not operate on the syntagmatic axis as in generative syntax (with A rewritten as B + C) but on the paradigmatic axis (with A specified as either B or C). In SFL, a system is a set of options, where one option is selected in an environment where the other option could have been selected but was not; each system includes an entry condition and an associated probability of occurrence for each option.⁷ As an example, the Polarity system (a functional and not a syntactic category) shown in Figure 2.2 illustrates two parallel systems, NOMINAL GROUP FUNCTION and CLAUSE FUNCTION, which are both available if the option 'specialized' is selected. Note that the values 0.9 and 0.1 attached to 'positive' and 'negative' respectively indicate the general probability frequency; i.e. most clauses are expressed with positive polarity. It is possible to reformulate the system as rules of alternating specification as shown in Figure 2.2.

As suggested by the combinatorial notations *am*, *an*, *bm* and *bn*, the functional category of Polarity has various instantiations across different places in the general lexicogrammatical system. What we can take

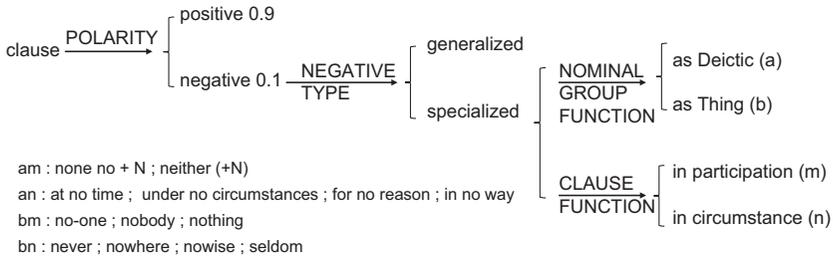


Figure 2.2 The system of Polarity (Halliday and Matthiessen, 2014, p. 23, Figures 2.1–2.8)

Table 2.4 Reformulation of the system of Polarity as rules of alternating specifications



1.	polarity	<input type="checkbox"/> positive negative
1.2.	negative polarity [type]	<input type="checkbox"/> generalized specialized
1.2.2.	negative polarity [specialized type]	<input type="checkbox"/> [NP-function] & [Clause-function]
1.2.2.1	negative polarity [specialized type] [NP-function]	<input type="checkbox"/> deictic thing-person
1.2.2.2.	negative polarity [specialized type] [Clause-function]	<input type="checkbox"/> in participation in circumstance

Not for distribution

from this is that the main ‘systemic’ feature of SFL serves therefore to elaborate graphs devoted to the progressive specification of major functional categories whose instantiations are conceived of as lexical or morphosyntactic.

3.4. Langacker’s Lexicogrammatical Systems as Reflexes of Perceptual and Cognitive Systems

At this point, we turn our attention to Langacker’s theory of language in order to consider lexicogrammatical systems in a non-structural or external orientation in contrast to SFL’s more structural, internal orientation. In his admirable work of linguistic metatheory, *Structure and Function*, Butler (2003, pp. 56–57) defines Cognitive Grammar as: (1) a usage-based theory (like other Construction Grammars), (2) viewing human language as a communication tool (like all functional grammars), (3) regarding communication devices like metaphor as crucial (unlike most functional grammars, but like Lakoff’s Construction Grammar), (4) rejecting the autonomy of the language system (like Jackendoff), (5) postulating cognitive motivations (as in Hopper’s ‘emergent grammar’) and (6) conceiving

of syntax as a symbolic link between semantics and phonology (like Jackendoff). In short, Langacker views Cognitive Grammar as construing differentiated lexicogrammatical systems from universal cognitive features by weighting cross-cultural preferences.

As an illustration one may mention the two main ways of syntactically combining a motion and a change of place caused by that motion according to Talmy (1985). Romance languages pick up as the finite verb the predicate conveying the caused change of place and express the causing motion as a gerundive or a prepositional phrase as in example (1) from French. Conversely, Germanic languages, including English, pick up as the finite verb the predicate of the causing motion and express the change of place with the means of a directional preposition or adverb as in (2) in English (*across*) and (3) in German (*über . . . hinüber*). A transitive expression is possible in German as shown in (4) by incorporating the preposition *durch* (synonymous with *über* in this context) in the morphological substance of the verb.

- (1) Paul a TRAVERSE la Manche en nageant/à la nage.
- (2) Paul swam ACROSS the channel
- (3) Paul schwam ÜBER den Ärmelkanal HINÜBER
- (4) Paul DURCHschwamm den Ärmelkanal

While there is perhaps a similar motivation in Cognitive Grammar as compared to SFL in terms of accounting for a relationship between content and expression (see Figure 2.1), the orientation of this motivation is fundamentally different. For Halliday it is that of socially oriented meanings, and for Langacker it is that of cognitively oriented meanings. In other words, Langacker is interested in motivating the lexicogrammar in terms of cognitive processes, whereas Halliday is interested in motivating it through social interaction.

4. From ‘Systemic’ to ‘Systemics’

In this section I would like to question the compatibility between the two senses of ‘system(ic)’ in SFL and in ‘systemics’ or ‘General System Theory’ (section 4.1), as well as SFL’s ability to conceive of natural languages as dynamic systems as both DuBois (1985) and Hopper (1987) have (section 4.2).

4.1. *The General System Theory of Ludwig von Bertalanffy*

In 1947 the biologist Ludwig von Bertalanffy founded a new large ‘theory of everything’. He wrote: “We postulate a new discipline called general system theory. General System theory is a logico-mathematical field whose task is the formulation and derivation of those general principles

that are applicable to ‘systems’ in general” (von Bertalanffy 1947, 1955; reprinted in Bertalanffy, 1968, pp. 32, 253). As a matter of fact, the birth of General System Theory had to do with the success in the same time of Norbert Wiener’s (1948) new ‘cybernetics’ (the general theory of government). The motivation of the two views was different: for Wiener it was the development of self-directing missiles during World War II, and for Bertalanffy it was the modalization of the evolution of species following the so-called *New synthesis* merging Darwin’s natural selection and Mendel’s genetic inheritance in the 1930s.

But the main common idea was that of ‘homoeostasis’ (or more commonly of ‘feedback loop’), that is, “the tendency towards a relatively stable equilibrium between interdependent elements, especially as maintained by physiological processes” (*Oxford Compact Dictionary*). The whole excerpt borrowed from an article of 1972 in which Bertalanffy recalls the genesis of General System Theory or systemics with regard to cybernetics merits careful reading:

In the meantime a different development had taken place. Starting from the development of self-directing missiles, automation and computer technology, and inspired by Wiener’s work, the cybernetic movement became ever more influential. Although the starting point (technology versus basic science, especially biology) and the basic model (feedback circuit versus dynamic system of interactions) were different, there was a communality of interest in problems of organizations and teleological behavior. Cybernetics too challenged the ‘mechanistic’ conception that the universe was based on the ‘operation of anonymous particles at random’ and emphasized ‘the search for new approaches, for new and more comprehensive concepts, and for methods capable of dealing with the large wholes of organisms and personalities’. Although it is incorrect to describe modern systems theory as ‘springing out of the last war effort’—in fact, it had roots quite different from military hardware and related technological developments—cybernetics and related approaches were independent developments which showed many parallels with general system theory.

(Bertalanffy, 1972, pp. 413–414)

4.2. *Emerging Linguistic Systems*

The crucial question is now whether some present linguistic theories may be ‘systemic’ in the sense of Bertalanffy’s ‘systemics’. It cannot be said to be the case with SFG, because SFG is a structural or internal theory of language functions in which external motivations or pressures able to shape the architecture of natural languages are not questioned.

Therefore, we must pay attention to theories integrating such motivations, in other words external theories of language functions. At least two

pioneers of that view are noteworthy, namely John DuBois with his paper of 1985 entitled “Competing Motivations” in John Haymann’s *Iconicity in Syntax*, and Paul Hopper with his contribution to the publications of the Berkeley Linguistic Society in 1987 entitled “Emergent Grammar”.

On his homepage,⁸ DuBois summarizes his view in “Competing motivations” as follows:

A simple exchange of utterances between two speakers contains a virtual microcosm of meaning, structure, prosody, pragmatics, interpretation, interaction, cognition—all the issues that linguists have found interesting enough to build disciplines and theories around. Understanding the organization of complexity in language provides deep intellectual challenges. I find it interesting to ask how grammars coordinate different layers of function—expressing semantic relations and managing information, for example—as they co-exist and compete for control of the organization of linguistic structures, like the clause. I see grammar as resolving competing motivations in systematic ways, thus driving the self-organization of grammatical systems and the emergence of complexity in linguistic structure—a really exciting new perspective for linguistics today.

Please notice first the topic of “self-organization of grammatical systems” that obviously derives from the concept of the feedback loop born in Wiener’s cybernetics and developed in Bertalanffy’s systemics, and then that the idea of competing and cooperating motivations has been exploited in a branch of generative linguistics, so-called Optimality Theory, first in phonology and later in syntax (see Geraldine Legendre and Paul Smolensky’s ‘Harmonic Grammar’ from 1990 on).

As to Paul Hopper, he develops similar ideas in his paper of 1987:

I 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. Its forms are not fixed templates, but are negotiable in face-to-face interaction in ways that reflect the individual speakers’ past experience of these forms, and their assessment of the present context, including especially their interlocutors, whose experiences and assessments may be quite different . . . The notion of EMERGENCE is a pregnant one. It . . . takes the adjective EMERGENT seriously as a continual movement towards structure . . . a view of structure as always provisional, always negotiable, and in fact as epiphenomenal, that is, at least as much an effect as a cause.

(p. 142)

As a matter of fact, the concept of emergent grammar is not persuasive always and everywhere, but only in social configurations where strong innovative external pressures challenge weak conservative pressures. For instance, that is not the case in present French because the prestige of metropolitan French inhibits the influence of Belgian, Swiss, Canadian or African French, but it begins to be the case for English since there exist bilingual dictionaries of British vs Singaporean English strongly influenced by Malay. And it was obviously the case in the fifth to eighth centuries in western Europe with the fast disintegration of spoken Latin and the emergence of various Romance languages: French, Italian, Spanish, Portuguese, Occitan, Catalan, Rhetoromanic and, at the eastern side, Romanian.

A decade later, in 1999, Frederick Newmeyer, an influential proponent of a generative syntax integrating functional features, made a counter-proposition against DuBois' (1985) and Hopper's (1987) views in a paper entitled "Some Remarks on the Functionalist Formalist Controversy in Linguistics". Newmeyer (1999, p. 474) acknowledges the reality of functional motivations, but he does not conceive of them as able to directly fashion linguistic structures. Therefore, trying to offer a *structuralized* revision of DuBois' idea of competing motivations, he inserts, between motivations and structures, a structural system shaped by these very motivations and conversely shaping these structures.

Newmeyer's view is obviously persuasive when the conservative pressures successfully challenge the innovative and therefore disintegrating pressures (see Figure 2.3),⁹ whereas DuBois' and Hopper's view of direct competition between grammatical structures and functional motivations is convincing when the conservative pressures are no longer able to balance the innovative ones. That happened, for instance, at the end of fifth century, when the collapse of the Western Roman Empire led to

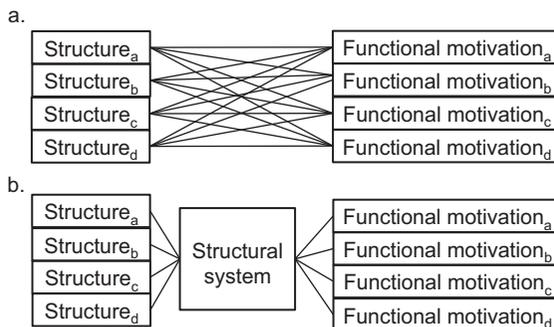


Figure 2.3 Between functional motivations and linguistic structures: (a) DuBois (1985); (b) Newmeyer (1999)

22 *Jacques François*

the disintegration of the entire Roman administration and school system. Therefore, a catastrophic level of illiteracy lasted until the eighth century. In these three centuries the linguistically unified Romania fragmented into several dialects which finally became independent languages (in conformity with Hopper's view), while Byzantine Greek remained the common language of the Eastern Roman Empire until its collapse one millenary later, because the administration of the empire was robust and ensured the conservation of the language structures from generation to generation through a well-organized education system (in conformity with Newmeyer's view).

5. Conclusion

In conclusion, I regard SFG/SFL as being actually 'systemic' in the usual sense of structural linguistics. But this view of systemicity is irreconcilable with that of Bertalanffy's systemics or General system theory, because Halliday's view is a structural one, assuming that the linguist is concerned only by motivations inherent to the semiotic system and not by motivations between this semiotic system, the embodied cognition and the extraneous world. Conversely, the view of external linguistic functionalism illustrated by the works of DuBois (1985), Hopper (1987), Langacker (2008), Lakoff (1987) and Croft and Cruse (2004) illustrates Bertalanffy's systemics applied to the linguistic realm. I recall as evidence in favour of that conclusion two extracts from DuBois and Hopper:

JOHN DUBOIS: I see grammar as resolving competing motivations in systematic ways, thus driving the self-organization of grammatical systems and the emergence of complexity in linguistic structure.¹⁰

PAUL HOPPER: The notion of Emergent Grammar is meant to suggest that structure, or regularity, comes out of discourse and is shaped by discourse in an ongoing process . . . The notion of emergence . . . takes the adjective 'emergent' seriously as a continual movement towards structure.

(1987, p. 142)

Notes

1. The grammar of errors: introduction to a functional linguistics, assimilation and diversification, brevity and invariability, expressivity.
2. The economy of sound changes
3. See especially vol.1, p. 48 for SFG, p. 39–40 for Dik's FG and p. 43 for van Valin's RRG.
4. Another (negative) factor brings the three theories close, namely their common lack of interest in diachronic development.
5. See Jackendoff and Goldberg's paper in 2004 about the so-called family of resultative constructions in English

6. The authors distinguish between instantiation and realization of a text: “The defining criterion is instantiation: text as instance. But realization comes in because what becomes accessible to us is the text as realized in sound or writing” (2014, p. 51). They evoke at the same place the impossible access to “instances of language at higher strata—as selections in meaning, or even in wording”. The analogy with Levelt’s psycholinguistic architecture is striking: selections in meanings are related to Levelt’s Conceptualization level, selections in wording to the first layer of his Formulation level, instantiation (involving word order and inflections) to its second layer, and realization to its Articulation level. Here, realization is seen as an “additional property” (ibid.), like articulation in Levelt’s view.
7. See Halliday (2013) for a detailed account of systems, including the notation and what systems represent.
8. www.linguistics.ucsb.edu/people/john-w-du-bois.
9. A similar concern is at the root of the extension of the theory of phonological optimality to syntax: diverging syntactic priorities are put in competition until the most effective syntactic structure emerges.
10. See www.linguistics.ucsb.edu/people/john-w-du-bois.

References

- Bally, C. (1936) *Linguistique générale et linguistique française*, 4th ed. Berne: Francke.
- Bertalanffy, L. (1968) *General System Theory: Foundations, Development, Applications*. New York: George Braziller.
- Bertalanffy, L. (1972) The history and status of general system theory. *The Academy of Management Journal*, 15(4), pp. 407–426.
- Bühler, K. (1934) *Sprachtheorie (Theory of Language)*. Frankfurt/Main: UTB.
- Butler, C. (2003) *Structure and Function: A Guide to Three Major Structural-Functional Theories*. Amsterdam: Benjamins.
- Butler, C. and Gonzalez-Garcia, F. (2014) *Exploring Functional-Cognitive Space*. Amsterdam: Benjamins.
- Coseriu, E. (1952) Sistema, Norma y Habla. In *Teoría del lenguaje y lingüística general*. Madrid: Gredos.
- Coseriu, E. (1958) Sincronia, Diacronia y Historia—El Problema del cambi-olingüístico. *Ciencias XV*, pp. 211–355, Montevideo.
- Croft, W. (2001) *Radical Construction Grammar*. Chicago: Chicago University Press.
- Croft, W. and Cruse, D. A. (2004) *Cognitive Linguistics*. Cambridge, UK: Cambridge University Press.
- Dik, S. (1978) *Functional Grammar*. Dordrecht: Foris.
- Dik, S. (1997) *The Theory of Functional Grammar*, vol. 2. Berlin: De Gruyter.
- Dubois, J. (1985) Competing motivations. In J. Haiman (Ed.), *Iconicity in Syntax*. Amsterdam: Benjamins, pp. 343–366.
- Foley, W. and Van Valin, R. (1984) *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Frei, H. (1929) *La grammaire des fautes*. Rennes: Ennoia. Reprinted 2007.
- Geeraerts, D. (2010) Recontextualizing grammar: Underlying trends in thirty years of cognitive linguistics. In E. Tabakowska and M. L. Łukasz Wiraszka (Eds.), *Cognitive Linguistics in Action: From Theory to Application and Back*. Berlin and New York: De Gruyter, pp. 71–102.



- Givón, T. (1979) *Understanding Grammar*. Chicago: Chicago University Press.
- Givón, T. (1984–1990) *Syntax: A Functional Typological Introduction*. Amsterdam: Benjamins.
- Givón, T. (1995) *Functionalism in Grammar*. Amsterdam: Benjamins.
- Givón, T. (2002) *Bio-Linguistics: The Santa-Barbara Lectures*. Amsterdam: Benjamins.
- Givón, T. (2009) *The Genesis of Syntactic Complexity*. Amsterdam: Benjamins.
- Goldberg, A. (2006) *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Halliday, M. A. K. (1973) *Explorations in the Functions of Language*. London: Arnold.
- Halliday, M. A. K. (1985) *An Introduction to Functional Grammar*, 2nd ed. London: Arnold.
- Halliday, M. A. K. (2013) Meaning as choice. In L. Fontaine, T. Bartlett and G. O'Grady (Eds.), *Systemic Functional Linguistics: Exploring Choice*. Cambridge: Cambridge University Press, pp. 15–36.
- Halliday, M. A. K. and Hasan, R. (1976) *Cohesion in English*. London: Longman.
- Halliday, M. A. K. and Matthiessen, C. M. I. M. (2014) *Introduction to Functional Grammar*, 4th ed. London: Routledge.
- Hauser, M., Chomsky, N. and Fitch, T. (2002) The faculty of language: What is it, who has it, and how did it evolve? *Science*, 298, pp. 1569–1579.
- Heine, B. (1993) *Auxiliaries: Cognitive Forces and Grammaticalization*. Oxford: Oxford University Press.
- Heine, B. (1997a) *The Cognitive Foundations of Grammar*. Oxford: Oxford University Press.
- Heine, B. (1997b) *Possession: Cognitives Sources, Forces, and Grammaticalization*. Cambridge, UK: Cambridge University Press.
- Heine, B. and Kuteva, T. (2002) *Word Atlas of Grammaticalization*. Cambridge, UK: Cambridge University Press.
- Heine, B. and Narrog, H. (Eds.). (2011) *The Oxford Handbook of Grammaticalization*. Oxford: Oxford University Press.
- Hengeveld, K. (1992) *Non-verbal Predication*. Amsterdam: Benjamins.
- Hengeveld, K. and Mackenzie, L. (2008) *Functional Discourse Grammar*. Cambridge, UK: Cambridge University Press.
- Hopper, P. (1987) Emergent grammar. *Proceedings of the Thirteenth Annual Meeting of the Berkeley Linguistics Society*, pp. 139–157.
- Jackendoff, R. (1983) *Semantics and Cognition*. Cambridge, MA: MIT Press.
- Jackendoff, R. (1997) *The Architecture of the Language Faculty*. Cambridge, MA: MIT Press.
- Jackendoff, R. (2002) *Foundations of Language: Brain, Meaning, Language, Evolution*. Oxford: Oxford University Press.
- Jackendoff, R. and Goldberg, A. (2004) The English resultatives as a family of constructions. *Language*, 80(3), pp. 532–568.
- Jakobson, R. (1941) *Child Language, Aphasia, and Phonological Universals*. The Hague and Paris: Mouton.
- Jakobson, R. (1959) On linguistic aspects of translation. In L. Venuti (Ed.) (2000) *Translation Studies Reader*, 2nd ed. New York: Routledge, pp. 113–119.
- Lakoff, G. (1987) *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. Chicago: Chicago University Press.

- Lambrecht, K. (1996) *Information Structure and Sentence Form*. Cambridge: Cambridge University Press.
- Langacker, R. (2008) *A Basic Introduction to Cognitive Grammar*. Cambridge: Cambridge University Press.
- Lehmann, C. (1982) *Thoughts on Grammaticalization*. Munich: Lincom.
- Léon, J. (2007) From linguistic events and restricted languages to registers. Firthian legacy and Corpus linguistics. *The Henry Sweet Society Bulletin*, 49, pp. 5–26.
- Levelt, W. J. W. (1989) *Speaking: From Intention to Articulation*. Cambridge, MA: MIT Press.
- Martinet, A. (1955) *L'économie des changements phonétiques*. Bern: Francke.
- Martinet, A. (1975) *Studies in Functional Syntax*. Munich: Fink.
- Newmeyer, F. (1999) Some remarks on the functionalist-formalist controversy in linguistics. In M. Darnell, E. Moravcsik, M. N. Newmeyer and K. Wheatley (Eds.), *Functionalism and Formalism in Linguistics*, vol. 1. Philadelphia: John Benjamins, pp. 469–486.
- Pinker, S. and Jackendoff, R. (2005) The faculty of language: What's special about it? *Cognition*, 95, pp. 201–236.
- Seiler, H. and Prempfer, W. (Eds.). (1991) *Partizipation: das sprachliche Erfassen von Sachverhalten*. Tübingen: Narr.
- Talmy, L. (1985) How language structures space. In H. L. Pick and L. P. Acredolo (Eds.), *Spatial Orientation: Theory, Research, and Application*. New York: Plenum Press, pp. 225–282.
- Troubetzkoy, N. (1939) *Grundzüge der Phonologie*. Travaux du Cercle Linguistique de Prague 7, Prag. Engl. transl. *Principles of Phonology* (1969). Berkeley and Los Angeles, CA: University of California Press.
- Van Valin, R. (Ed.). (1993) *Advances in Role and Reference Grammar*. Amsterdam: Benjamins.
- Van Valin, R. (2006) *Exploring the Syntax-Semantics Interface*. Cambridge: Cambridge University Press.
- Van Valin, R. and Lapolla, R. (1997) *Syntax: Structure, Meaning and Function*. Cambridge: Cambridge University Press.
- Wiener, N. (1948) *Cybernetics, or Control and Communication in the Animal and the Machine*. Cambridge, MA: MIT Press.