

# **SYSTEMIC FUNCTIONAL LINGUISTICS**

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Edited by  
J. R. Martin and Y. J. Doran

CRITICAL CONCEPTS IN  
LINGUISTICS

# SYSTEMIC FUNCTIONAL LINGUISTICS

Critical Concepts in Linguistics

*Edited by*  
*J. R. Martin and Y. J. Doran*

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**Around Grammar: Phonology, Discourse**  
**Semantics and Multimodality**

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# INTRODUCTION

Our goal for this volume has been to illustrate the way in which principles derived from SFL grammatics were deployed to explore adjacent strata (phonology and discourse semantics) and extra-linguistic semiotic systems – elaborating systemic functional grammar (SFG) as a theory of language (systemic functional linguistics – SFL) and a theory of semiosis (systemic functional semiotics – SFS).

## 11 Phonology

As we did with Volume I, we open this volume with a paper by Robins (1957), this time his ‘Aspects of prosodic analysis’, which introduces Firth’s approach to phonological description. Robins is particularly concerned to position prosodic analysis in relation to phonemic theory as it had developed in the tradition of American structuralism. In doing so Robins emphasises the significance of the range of phonological structures considered, including what he calls sentence, sentence pieces, syllables, syllable parts and phonematic units. In relation to such units, prosodies of extended realisation and of demarcation are introduced – the former referring to features such as stress, pitch, length, nasalisation, retroflexion, palatalization and velarisation which spread over a structure and the latter to features such as consonant plosion or glottal stops which may delimit a structure from preceding and following units. Robins also points out the need to allow for both types of prosody in relation to grammatical units, something that would have been ruled out of bounds as mixing levels in the stricter phonemic analyses of the time. For work exemplifying the prosodic analysis of the ‘London School’ see the papers in *Studies in Linguistic Analysis* (Special Volume of the Philological Society, 1957) and Palmer 1970, along with Waterson’s 1987 study of prosodies in language development and speech processing; Henderson’s 1949 ‘Prosodies in Siamese: a study in synthesis’ is considered a classic article in this tradition. Tench’s 1992 collection of papers includes a useful introduction by the editor as far as the evolution of systemic phonology out of prosodic analysis is concerned; and Bowcher and Smith (2014) provide a recent collection of phonological studies in English.

The next paper by Halliday is from the Tench volume, and re-works his analysis of Peking syllable finals based on data first presented as Appendix A in

Halliday 1959. In his analysis Halliday concentrates on syllable prosodies he refers to through choices in systems of POSTURE (narrow vs wide, and if wide, yotizing or labiovelarizing), RESONANCE (nasal vs oral) and APERTURE (close vs non-close, and if non-close, narrow vs wide). He argues that by proposing appropriate systems for syllable initials and finals (onset and rhyme), a revealing description can be developed without reference to the phoneme. This would have pleased his teacher Firth, who tended to dismiss phonemic theory as an ill-conceived misstep in the history of linguistics based on alphabetic writing systems; Firth's preference was for a phonetically sensitive phonology affording multi-tiered system/structure descriptions of the language to hand. For Halliday on the other hand, the question of how many ranks are required in phonological analysis is a descriptive question, not a theoretical one – and he notes in passing the usefulness of both phoneme and syllable ranks for the description of languages like English and Akan. Alongside his systemic interpretation, it is important to note Halliday's conception of syllable structure as a wave, with choices from initial and final systems determining the articulation of syllable nuclei.

The next paper by McGregor (1992) complements Halliday's by focusing on phonemes in Gooniyandi. McGregor proposes a phonological rank scale for this Australian language consisting of tone unit, (phonological) word, syllable and phoneme and develops a full systemic description of both vocalic and consonantal phoneme systems. He notes in addition the need to extend this description with a more prosodic approach, dealing with what Robins would consider prosodies of extended realisation (ranging across phoneme segments) and demarcation (in relation to higher ranking phonological units and also grammatical ones). Of particular significance in this paper is McGregor's attention to motivating systems of features, including their labelling. He also makes useful contributions to systemic phonology with respect to incorporating insights from the Prague School – including Trubetskoj's notions of privative and equipollent oppositions in particular (the former designated as binary systems labelled [+voice] vs [-voice] and the latter designated as systems without +/- features, e.g. [lateral] vs [tap]). McGregor also argues for the necessity of recognising two types of markedness, one involving restrictions on feature combinations from simultaneous systems and the other treating the unmarked member of a privative opposition as the one that occurs in environments of neutralisation where the +/- contrast does not obtain, with the '–' feature designating the unmarked term.

For our final phonology paper we have chosen Halliday's 1963 'The tones of English' (revised for Halliday 1967). In this paper Halliday assumes a rank scale consisting of tone group, foot, syllable and phoneme, and concentrates on the systems he refers to as TONALITY, TONICITY and TONE at the top end of the scale – although the organisation of English tone groups into feet on the basis of the timing of salient and non-salient syllables has to be considered and naturally brings rhythm into the picture. Halliday's basic orientation here is that the distinctions which need to be recognised are those which the grammar demands

(MOOD and INFORMATION systems in particular), with the proviso that the phonetic identity of phonological distinctions is respected across a range of possible uses. In Halliday's words, 'The concept of tone 1...' rests on an abstraction from the phonic data in which one has asked simply '...is this distinction, which I can abstract from observations of the substance, *meaningful*: is it exploited *some-where* in the grammar or lexis of the language?' (original emphasis; 1967: 5). Of interest here is Halliday's (2013: 121) comment on the origin of his work on intonation, in an educational context, as follows:

David Abercrombie said to me, 'Will you teach on my summer school, the British Council Summer School for the Phonetics of English for Foreign Students?' This was in 1959. And I said: 'Certainly. What do you want me to teach?' He said, 'Well, you know Chinese. Teach intonation'. I knew nothing about English intonation, so I started studying it.

Yet another instance of the way in which Halliday's training, teaching, field work and research in Chinese has influenced the development of SFL. To this paper we have appended two networks from Halliday (1967), which formally arrange the intonation systems discussed here in relation to one another in phonology, and to the grammar of MOOD in lexicogrammar (as more delicate options). For more comprehensive introductions to Halliday's work on intonation, including audio support material, see Halliday 1970 and Halliday and Greaves 2008.

## 12 Grammatical metaphor

In this section we introduce the concept of grammatical metaphor, beginning with Halliday's 1984 'Language as code and language as behaviour: a systemic-functional interpretation of the nature and ontogenesis of dialogue' article from the proceedings of a symposium sponsored by the Wenner-Grenn Foundation for Anthropological Research in August 1975 and organised to foster the integration of linguistics and cultural anthropology. Halliday first tackles the competence/performance duality promoted by philosophical grammarians at that time, arguing for a more Hjelmslevian perspective in which text is seen as the instantiation of system (the complementarity of the code and its use in the ethnographic/descriptive tradition). This complementarity is then explored in relation to dialogue. Halliday's strategy is to set up a hierarchy of three networks (i socio-cultural, ii semantic and iii grammatical) and to discuss realisation relations among the three. Particularly influential was his discussion of semantics in relation to grammar – specifically the realisation of SPEECH FUNCTION choices in MOOD. For this he introduces the concept of congruent and incongruent realisations, with a congruent realisation characterised as 'that one which can be regarded as typical – which will be selected in the absence of any good reason for selecting another one' (1984: 14), commenting further that,

as speakers of a language we are aware of what is the congruent mode of encoding any feature, and we use this as a kind of base line: for example, however rarely we may actually use an imperative in giving orders, we have a feeling that it is in some sense the unmarked way of doing so.

(1984: 14)

Congruent and incongruent realisations of *SPEECH FUNCTION* in *MOOD* are then explored in a few short passages of dialogue. The paper moves on to provide an illuminating synopsis of the ontogenesis of these systems as Halliday's son Nigel moves from his protolanguage into the mother tongue.

By the time of the first edition of *Introduction to Functional Grammar* (Halliday 1985) the question of direct and indirect realisation relations between semantics and grammar was being discussed with reference to the more general phenomenon of grammatical metaphor, including the metaphors of *MOOD* explored in Halliday's paper (with the incongruent realisations now termed 'metaphorical'). The basic idea here is that languages expand their meaning potential by drawing on a range of lexicogrammatical resources which symbolise rather than directly encode semantic choices; this opens up an indefinitely large range of meanings alongside those involving congruent realisations. Halliday's stratified approach to *SPEECH FUNCTION* and *MOOD* is further explored in Martin 1992a and Egins and Slade 1997/2005.

Halliday's 'Things and relations: regrammaticising experience as technical knowledge' was prepared for a workshop on science discourse organised at the University of Sydney in July 1994 to take advantage of visits to Australia by Charles Bazerman and Jay Lemke (with papers collected as Martin and Veel 1998). In this paper Halliday turns his attention to ideational metaphor, focusing on the language of science. In this regard Halliday is particularly concerned with the function of the semantic energy release by ideational metaphor, with respect to both technicality and explanation in the evolution of scientific discourse. Underpinning this focus, the paper includes a detailed synopsis of types of ideational metaphor, carefully distinguishing the grammatical process of derivation (transcategorisation) from the interstratal tension characterising metaphorical realisations of ideational meaning (for expansion of this synopsis see Halliday and Matthiessen 1999, Chapter 7). As we will document in Volume V of this series, *Language in Education*, Halliday's development of an applicable linguistics has proven foundational for a number of educational linguistics initiatives around the world. But his work on ideational metaphor in relation to the construal of uncommon sense knowledge is arguably the most profound of his contributions, going as it does to the very heart of the nature of institutionalised teaching and learning as specialised knowledge is recontextualised across primary, secondary and tertiary sectors of education. The significance of ideational metaphor is further developed in Halliday and Martin (1993) and Halliday (2004); both collections feature his foundational paper, 'The language of

physical science', which includes an invaluable overview of the evolution of metaphorical realisations of external and internal conjunction (e.g. Halliday 2004: 155). Simon-Vandenberg *et al.* 2003 comprises a useful selection of papers exploring various aspects of grammatical metaphor.

### 13 Grammar and discourse

In this section we include two papers which recontextualise grammatical description in relation to discourse – Fries in relation to the discourse function of Theme, and Hasan in relation to cohesion, TRANSITIVITY and nominal group structures, and her proposed measures of coherence.

Fries' 'On the status of Theme in English: arguments from discourse' (1981) reports on research conducted at the University of Sydney while on sabbatical there in 1977–1978. Fries begins by contrasting what he calls the 'combining' approach of the Prague School and other scholars (which treats Theme as a unit that is both known and from which the speaker proceeds) with the SFL 'separating' approach, which distinguishes Theme as point of departure for the message (vs Rheme) from Given as presumed information (as opposed to New). By exploring patterns of Theme selection in a wide variety of texts Fries shows that choices for Theme compose what he calls a text's method of development; and he carefully distinguishes method of development from the more traditional notions of the topic and the point of a paragraph. Fries' paper is particularly important as far as argumentation is concerned, because it set the standard for discourse analysis in SFL, much as Davidse's paper in Volume I set the standard for grammatical reasoning. For further work on Theme see the papers in Ghadessy (1995) and Hasan and Fries (1995). Martin 1992 and 1993 develops Fries' work in relation to the discourse complementarity of patterns of Theme and New selection, including their bearing on higher levels of text organisation (periodicity); Martin 1992b and 1995 reprise Fries' argumentation for a separating approach in the face of volleys of pointed critique by Huddleston (1988, 1991, 1992; cf. Matthiessen and Martin 1991; Martin and Matthiessen 1992).

Hasan's 'Coherence and cohesive harmony' (1984) reports on research initiated at the Sociological Research Unit at the University of London Institute of Education from 1968 to 1970. It includes important developments in the analysis of lexical cohesion and a significant reinterpretation of cohesive ties as identity and similarity chains. On the basis of these developments, Hasan is able to ask questions about the participation of items in chains (relevant vs peripheral tokens) and the nature of chain interaction – where chain interaction is considered in terms of whether two or more members of a chain stand in an identical experiential relation to two or more members of another chain. This enables Hasan to distinguish relevant tokens participating in such interaction, which she terms central tokens. This framework then makes it possible for her to suggest criteria for measuring the relative coherence of texts (e.g. that in coherent texts, central tokens form at least 50 per cent of the total tokens, and that the higher the

ratio of central tokens to peripheral tokens the more coherent the text will be perceived to be). For a complementary presentation of this technique see Hasan 1985. Martin 1992a (Chapter 6) discusses cohesive harmony in the context of a discussion of additional patterns of texture (NEGOTIATION, CONJUNCTION, method of development, point and modal responsibility); Martin 1992a and Martin and Rose 2003/2007 explore identity and similarly chains from the perspective of Martin's discourse semantics.

## 14 Discourse semantics

In this section we move on to discourse semantics proper, in a tri-stratal model of language featuring a stratified content plane – involving a semantics that moves beyond the meaning of the clause to consider the semantics of text. Berry's 1982 'Towards layers of exchange structure for directive exchanges' builds on her 1981 'Systemic linguistics and discourse analysis: a multi-layered approach to exchange structure' paper (which focused on proposition oriented exchanges) by providing a complementary analysis of action oriented exchanges. Both papers develop ideational, textual and interpersonal layers of function structure for exchanges and can thus be read as an SFL development of Sinclair and Coulthard's 1975 scale and category grammar inspired approach to classroom discourse. Equally significantly, in relation to both the initiating move followed by responding move perspective assumed by Halliday in his 'Language as code and language as behaviour: a systemic-functional interpretation of the nature and ontogenesis of dialogue' paper (this volume) and much of the work on adjacency pairs in conversation analysis, Berry's analysis of the exchange is expanded to consider sequences of up to four moves (later expanded to five moves in Ventola 1987). Another break-through in this paper is Berry's proposal for a system-structure cycle at exchange rank generalising across proposition oriented and action orientated exchanges. Berry's paper laid the foundation for Ventola's (1987) and Martin's (1992a) consideration of additional tracking and challenging moves in exchange structure, and for the proposals for an additional rank, manoeuvre, to handle teacher-student interaction in genre-based literacy pedagogy's teaching/learning cycle (Dreyfus and Martin in press). The resulting interpersonal rank scale (move, exchange and manoeuvre) can be usefully compared with Halliday and Matthiessen's 1999 proposals for a complementary set of ideational discourse semantic ranks (element, figure and sequence).

Martin's 2000 'Beyond exchange: appraisal systems in English' paper complements Berry's work on dialogue as exchange of propositions or actions by reconsidering dialogue as a negotiation of feeling. A general discourse semantic system called APPRAISAL is proposed, consisting of three major resources – ATTITUDE, ENGAGEMENT and AMPLIFICATION (later termed GRADUATION). A framework for analysing attitude is developed around the systems of AFFECT, JUDGEMENT and APPRECIATION (very roughly comparable to everyday notions of emotion, ethics and aesthetics). The framework is illustrated in relation to a range of discourses



foregrounding one or another variable, drawing heavily on the negotiation of feeling in Willy Russel's play *Educating Rita* (and the successful film version with the same name). Appraisal analysis is further developed in Martin and White 2005 and can be electronically accessed at [www.grammatics.com/appraisal/](http://www.grammatics.com/appraisal/) (a website curated by Peter White). For further discussion of appraisal in relation to dialogue see Martin 2000 and Martin *et al.* 2013.

Given the limitations of space we have not been able to do justice to the range of discourse semantic systems being developed in SFL. For foundational work see Halliday and Hasan 1976 on cohesion; for development of this perspective as the discourse semantic systems of IDENTIFICATION, IDEATION and CONJUNCTION see Martin 1992a, Martin and Rose 2003/2007 (which also include consideration of NEGOTIATION, APPRAISAL and PERIODICITY systems).

## 15 Systemic functional semiotics

For the final two chapters of this volume we have included papers reflecting the explosion of SFL inspired research on modalities other than language. The seminal work in this regard was Kress and van Leeuwen's *Reading Images* (1990), originally published in the Deakin University Press 'Sociocultural Aspects of Language and education' series edited by Frances Christie, but best known through the 1996 and 2006 Routledge revised editions (with O'Toole 1994 offering a complementary seminal resource). Martinec 2005 reviews a range of work in this tradition. For recent developments see Dreyfus *et al.* 2011 and Painter *et al.* 2013.

The first paper, by Bateman (2007), revisits work on film montage by Metz and those developing his framework. Bateman focuses in particular on problems arising from the syntagmatic representations that had been borrowed from formal linguistics and the failure to properly recognise that discourse semantic as opposed to grammatical structures were at stake. Bateman moves on to propose an SFL based system/structure perspective, with clearly defined syntagmatic units (i.e. shots and their iterations) and a clearly articulated set of paradigmatic relations functioning as a resource for interpreting (abducting in Bateman's terms) relations between shots. Bateman's focus on 'conjunctive relations' (drawing as it does on van Leeuwen's 1991 initiative) usefully supplements the range of discourse semantic resources considered in Parts 13 and 14 above. His paper is also exemplary insofar as it models the kind of rigorous argumentation needed to push forward research in systemic functional semiotics – now that the pioneering work opening up these frontiers has been done. For a more extended account of Bateman's work on film, see Bateman 2013, Bateman and Schmidt 2012; for further modelling of productive argumentation and analysis see Bateman 2008 (on multimodality and genre) and for a critical introduction to multimodal discourse analysis see Bateman 2014.

Our final paper, by Martin (2011), interrogates research in multimodal discourse analysis from the perspective of a full range of SFL theoretical

parameters, including axis (system–structure relations), the ranks, strata and metafunctions which SFL deploys to organise system bundling, and the complementary hierarchies of realisation, instantiation and individuation. Martin's main concern is the way in which early work on modalities other than language has tended to draw on just one or two parameters (e.g. axis and metafunction in Kress and van Leeuwen's work, or rank and metafunction in O'Toole's), setting aside others. Of equal concern is work which treats strata, rank and metafunction as theoretical primitives, when they are in fact derived from the interdependency of systems in descriptions of the clause grammar of language. Additional axis-based reasoning is thus an important dimension of development as systemic functional semiotics evolves. Martin's paper also considers approaches to the borders of semiosis (as canvassed in Dreyfus *et al.* 2011), in relation to van Leeuwen's notion of parametric systems (2009) and recent work on paralanguage inspired by Chris Cleirigh (unpublished, but introduced in Martin *et al.* 2013).

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