

## *Intonation in the grammar of English* M. A. K. Halliday and William S. Greaves (2008)

*Reviewed by Bradley A. Smith*

The very title of this book will be, for many scholars studying the phenomena of the sound signal commonly referred to under the heading of ‘intonation’, provocative. Halliday (1963) has been unique in assigning full grammatical status to all the semantically-significant distinctions expressed through the phonological resources of intonation systems, as part of his general linguistic description of English; while other scholars assign no or partial grammatical status to the various intonation phenomena. It is interesting in this regard to compare the current book title to that of Halliday’s first (1967) book on this subject, *Intonation and Grammar in British English*. The title of the earlier work invoked the then contemporary discussion of the relations of intonation to the grammar of English; in the present collaborative work the place of intonation as a part of English grammar is assumed (as it was in his 1963 article). For some scholars therefore the presentation of essentially the same description as that in Halliday’s earlier work might be somewhat of a disappointment.

What is new, however, in this book is significant to an understanding and appreciation of both intonation phenomena – their characteristics and contributions to meaning in English – and their description within the SFL framework. First, it has always been the case that an understanding of Halliday’s description of intonation relies intimately upon an understanding and appreciation of Halliday’s theory of language in general, that known now as systemic functional linguistics (SFL). Since the publication of the earlier work the SFL theory and general description of language has been

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thoroughly developed and applied by Halliday and a large community of scholars working within this linguistic tradition (e.g. Halliday and Matthiessen, 2004). Thus in the present work the underlying principles (dimensions) of the theoretical framework are clearly presented and explained, and the description of intonation related to and its presentation organized according to these dimensions – stratification, metafunction, instantiation, rank, axis and delicacy. The authors have clearly taken pains to make the presentation of the theoretical framework accessible to those from outside of the SFL community (and indeed linguistics).

Second – and because of the utility of the SFL multidimensional framework for locating and thinking about meaning-bearing phenomena from a variety of (semiotic and material) perspectives – Halliday and Greaves are able to draw upon and relate their approach and description to work outside of linguistics proper (e.g. evolutionary brain science, acoustic physics) and to other work within linguistics and within the various traditions of and approaches to the study of intonation phenomena. This gives the authors substantially increased explanatory power, and allows them to identify commonalities and distinctive features of their approach in relation to other work treating of intonation phenomena.

The third significant contribution of this book is the extensive use of sound samples of spoken language (and other sounds). The provision of spoken samples was a feature of Halliday's (1970) pedagogically-oriented treatment of the subject, where extensive tape recorded samples of speech with accompanying analyses were provided for the student to learn, practice and check their analytical skills. This is an essential component of any study of intonation: it is the aural equivalent of the extensive sample analyses of written (or, more commonly, transcribed spoken) text provided in any presentation of a linguistic description (for example, in Halliday and Matthiessen, 2004). In the present work there are not only again extensive samples of spoken language and their analysis; there are, in addition, extensive use of Figures presenting pictures taken with the software application, 'Praat', which illustrate (via the visual metaphor of frequency/intensity graphs) the phonetic characteristics of the phonological (grammatical and semantic) distinctions the authors are discussing. Furthermore, the speech samples are (on the whole) authentic, naturally occurring discourse; and are spread throughout the text – rather than as an appendage at the end of the book – as (in the CD-ROM version of the text) clickable hyperlinks, further highlighting the authors' concern, expressed at the beginning of the book (in a section on how to use the CD), that the reader play these sounds – that is, also be a listener.

The overarching aim served by these recontextualizations of the original 1963 description is to appeal and be accessible to those [from the back

cover text] ‘interested in language but not necessarily linguistics or phoneticians’ (and, perhaps, although not a stated aim, to enable linguists and phoneticians to reconsider this approach to the description of intonation). In this sense, two major approaches evident in the history of intonation studies are integrated: the pedagogic approach (primarily intonation within a holistic meaning-based perspective designed to teach learners of English as a second language), and the scientific approach (intonation as a phenomenon for (often instrumental) study in itself and with respect to theory and description).

The book is divided into two parts, corresponding roughly to the basic stratal division between content and expression (‘The study of speech sound’ and ‘Intonation and meaning’) – I write ‘roughly’ because a feature of the approach taken is that all strata are implicated in any particular stratum of the description and indeed drawn upon in the presentation of the description. Chapter 1 begins the discussion from the perspective of thinking about sound: the many different ways in which one can (and people do) think about this phenomenon. The authors consider the different effects that sound has on the human, in particular the infant brain, referring to work by Edelman (e.g. 1989) and Donald (e.g. 1991) on the ontogenic process of brain evolution, and with special reference to those sounds produced by humans of critical importance to the infant development, those organized as communication (speech). Functional theory is thus related to neural biology: those aspects (patterned phenomena) of the sound signal impinging upon the auditory sense of an infant that have a function in its social-semiotic development (initiation into the particular adult culture, including its phonological systems) are attended to and taken up by the developing infant brain as part of its adaptive matrix. The authors also thus point to the symbiotic relations between semiosis – the symbolic means for the communication of meaning – and the socio-material environment in which semiotic activity takes place and to which it relates.

The authors urge the reader to consider sound first as a material phenomenon by listening to a variety of sound samples provided, asking the reader a series of questions about these sounds that are intended to stimulate perspectival thinking. This approach then contextualizes a discussion about the different ways in which scholars have perceived and studied sound: for example as acoustic signal, its properties as a complex of sine waves, each with features of amplitude, frequency and fundamental frequency; as biological phenomenon, in terms of the physiology (including neurophysiology) of speech production and reception; and as the expression of meaning. This discussion then forms the context for a discussion of the different disciplinary orientations and approaches to thinking about the phenomenon of intonation and a

brief introduction to the approach taken in this book: intonation as phonological (systemic) organization of sound for the purposes of realizing semantic/grammatical distinctions, metafunctionally organized, as seen from the enhanced perspectives afforded by contemporary computational resources and techniques.

Chapter 2 continues the focus at the phonetic stratum, but this time in terms of the technical resources available for representing sound, bringing in perspectives from physical, acoustic and phonetic sciences. The discussion includes much useful information on the use of wave, spectrogram and F0 analyses. In Chapter 3 the move is then 'up' a stratum, to the level of phonology, but the presentation of the description of phenomena at this stratum is made with respect to both the stratum above (lexicogrammar) and that below (phonetics) – that is, via the method of 'trinocular vision' (Halliday, 1978). In Chapter 4 the specifics of this interstratal description are recontextualized with respect to the general linguistic principles of SFL theory operative throughout the description. Thus the presentation of the lexicogrammatical description, briefly introduced in the previous chapter and continued in detail in Chapter 5, is here scaffolded by the presentation of a holistic perspective on the stratal and metafunction dimensions (with special reference to the development of language in the infant, taken up also later in Chapter 4), with reference also to the types of structure with which each set of metafunctional systems is formed (constituency, prosody, periodicity).

At the end of Chapter 4 (and Part I: that is, where the focus is on the expression plane) there is an Appendix, nestled within the main body of the book text rather than at the end, as is customary – clearly a significant organizational choice. Here excerpts from an actual doctor-patient interview are presented with their analyses in terms of the preceding description (of phonological and lexicogrammatical systems and phonetic illustrations of their realization in sound), with extensive use of Praat sound and textgrid files and accompanying pictures illustrating the analytical process. These resources are important not only in terms of the pedagogic aim of the book, scaffolding understanding of the description, but also in terms of the theoretical aims, as they provide the means by which scholars may compare the Halliday-Greaves analysis to their own or other types of analysis.

Into Part II the move is again stratal (up to the content plane: lexicogrammar and semantics), but in Chapter 5 the primary dimensional principle of organization becomes that of metafunction, with stratification continuing as a secondary pattern within the discussions of the textual, interpersonal and ideational contributions to grammar and discourse made by intonation systems. The move is also along the cline of delicacy: for example, moving from consideration of MOOD as realization of SPEECH FUNCTION to the

grammatical and semantic consequences of different TONE choices within the environment of each of these MOOD options, that is, at a next level of delicacy within the MOOD system. The argument for considering TONE in relation to grammatical rather than semantic environments is persuasively made in several places throughout the discussion. Chapter 6 is a detailed demonstration of ‘how sound makes meaning’ in a text, a radio interview. The level of detail shows the semogenic power of intonational systems and the subtle nuances of meaning afforded by these resources, and serves to illustrate the solutions the authors offer to the long-standing problem of how to treat intonation in relation to other language phenomena. Also of consequence in this analysis (and the earlier one in Appendix 1) is consideration throughout of the texts as members of registers of language: particular subpotentials of meaning available within particular contextual settings, a perspective explicitly and analytically addressed at certain points in the discussion.

Chapter 7 presents a discussion of the secondary tone options which add further meaning potential to the English language, again working from the ‘bottom up’ through discussions of these phonological distinctions and their phonetic realizations and the grammatical and semantic functions they perform. The book concludes with a phonological analysis of the corpus of texts drawn upon through the book, an analysis guide of all the relevant systems at the different strata for reference, and then a detailed dimensionally integrated sample analysis of two text excerpts, showing how the description presented in the book might be employed as part of a general applied linguistic analysis. This is particularly important as a stimulus to the incorporation of this description into the general ‘toolkit’ for applied linguistic tasks.

*Intonation in the Grammar of English* presents a mature presentation of the SFL description of intonation within the English language, one that has benefited from the collaborations with and inputs from communities of scholars both within and outside of the SFL tradition, including scholars working from the perspectives of other disciplines. This maturity can be seen in the variety of perspectives from which intonation is presented – as sound, as physical and (neuro-)biological phenomena, as organization of sound, as formal grammatical systems and as meaning in context – and particularly in the integration of such a variety of perspectives within a coherent, accessible account. It is in the integration of an established theoretical understanding with the ever-renewing novelties of technical resources and interdisciplinary perspectives that this book offers a most promising approach to twenty-first-century study of sounds (and other modalities) as meaning-bearing phenomena.

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