José M. Martín Morillas

ENGLISH LEXICAL SEMANTICS

An Introductory Course

Granada, 2023

Colección Manuales Major

Ciencias Sociales y Políticas

ISBN: 978-84-338-7191-6 • Depósito legal: Gr./874-2023
Edita: Editorial Universidad de Granada
Campus Universitario de Cartuja. Granada
Colegio Máximo, s.n., 18071, Granada
Telf.: 958 243930-246220
Web: editorial.ugr.es
Fotocomposición: María José García Sanchis. Granada
Diseño de cubierta: Taller de diseño gráfico. Granada
Imprime: Gráficas La Madraza. Albolote. Granada

Printed in Spain *Impreso en España*

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ACKNOWLEDGEMENTS

The author owes a great debt of gratitude to the following colleagues from the Department of English Studies of the U. of Granada for their invaluable encouragement, support, and corrective feedback offered during the various stages of the making of this book: Salvador Valera Hernández, Ana Díaz-Negrillo, M.ª Elena Rodríguez Martín, José L. Martínez-Dueñas Espejo, and José Ruiz Mas. My gratitude is extended to Olga Blanco Carrión from the U. of Córdoba. I also wish to express my sincerest thanks to Jean Sanders for her editorial assistance in an earlier draft of the book. All remaining errors and shortcomings are solely my own.

INTRODUCTION

Lexicology is the branch of linguistics concerned with the study (i.e. description and investigation) of Words. Lexicologists —the linguistic experts in words— study these linguistic units from many points of view: pronunciation/spelling, meaning, structure, behaviour, usage, history. This book is one more contribution to the field of Lexicology - more precisely, the book consists of a general introduction to Lexicology with an emphasis on the semantic (meaning) properties of English words. Hence the title: *English Lexical Semantics*. The book, however, is not aimed at the professional lexicologist; it is intended for students of English language and English linguistics. Hence the sub-title: *An Introductory Course*. As such, the book has a mixed orientation, at once theoretical (descriptive) and applied (pedagogical). This orientation requires clarification.

Broadly speaking, linguistic works fall into two main descriptive types: theoretically-oriented works and applied-oriented works. A descriptive work with a theoretical orientation requires two essential ingredients: a theoretical model and some data, collected from a variety of available sources: textual corpora, subjects' elicitation procedures, introspection, etc. The model provides a general explanation of how language works and the data illustrate specific aspects of the language. Some theoretical works start by describing the model, followed by its application to the data; other works apply the model directly to the data. One example of the latter type is M.A.K. Halliday's *Introduction to Functional Grammar* (1985). More specific descriptions can be written for one of the components into which linguistic description is commonly divided: the phonological, morphological, lexical, grammatical, syntactic, or pragmatic components. An example is L. Bauer's *English Word-Formation* (1983).

For its part, a descriptive work with an applied orientation makes use of an available theoretical description as a means to a practical, instrumental end, such as language teaching or language learning. Some applied-oriented works serve as reference works for advanced students of a language, for instance, *The Collins COBUILD (Reference) Grammar of English* (1995). Other applied-oriented works are aimed at beginning or intermediate learners, and as such they appear directly as classroom materials. For obvious reasons, applied linguists tend to be far more eclectic than theoretical linguists in their search for a descriptive model. Acting as mediators between 'producers' of

theories (theoreticians) and 'consumers' of theories (practitioners), applied linguists look to several disciplines for insights and implications. For instance, in foreign language teaching, insights from linguistics, psychology, and education inform the design of teaching materials whose purpose is to help teachers organize the conditions for successful language instruction in the classroom.

But there is a third type of linguistic description, one that is scarcely recognized in standard accounts: the mixed description, half-way theoretical and half-way applied. It is found in such works as coursebooks, textbooks, and manuals. Although inspired by trends in theoretical linguistics, these works are not primarily intended for the theoretical linguist, nor are they supposed to serve as a resource for the language teacher or for the language learner/student either. Rather, their purpose is to introduce language students and linguists-in-training to the description of a component of language or to the foundations of a linguistic discipline, including the methodology of linguistic research. Examples of this type of work are: H. Jackson's *Grammar and Vocabulary. A Resource Book for Students* (2002); and H. Jackson and Z. Amvela's *Words, Meaning, and Vocabulary: An Introduction to Modern English Lexicology* (2007).

Three features distinguish mixed-oriented works from purely theoretical works. The first is the scope and depth of the subject matter; the second, the didactic approach; and the third, the referential-bibliographical basis. The job of the theoretical-applied linguist consists not merely in digesting the essential contents of a series of fundamental theoretical works and making this digest palatable for students' assimilation; another part of the job consists in teaching students how to navigate the deep waters of theoretical and practical argumentation by acquainting them with the theoretical and methodological issues currently debated in a general or specific theory/field/branch of linguistics. Some works lay emphasis on theoretical aspects while others stress the methodological aspects. In any case, the pedagogical orientation of these works is evident in the general tenor of the discussion: though written in a formal, academic style, topics and issues are usually approached in a 'reader-friendly' manner, aided by systematic exemplifications and illustrations of technical notions and terms, including glossaries, together with extensive use of diagrams, tables, and pictures. Above all, the pedagogical orientation is evident in the practical sections commonly accompanying the theoretical discussion. These sections (usually set at the end of every chapter, or insterspersed throughout the chapters) include a series of exercises on the most important general or specific topics dealt with in each chapter. The exercises may be used for a variety of didactic purposes: to raise and review key ideas, notions, and issues; to practise, consolidate, reinforce, and expand theoretical points; or as a testing resource for assessing students' continuous or final level of attainment. Some works provide an answer key to the exercises while other works prefer to leave the feedback to the teacher imparting the subject, or, in the case of autonomous students, to their reliance upon bibliographical and other resources (including internet resources).

As stated above, this book belongs in the tradition of linguistic works with a mixed orientation. The aim is to help students of English language and English linguistics acquire a basic understanding of how the lexical level (lexis, the lexicon) of English is organized; what units operate in it; how they are formally structured; how they are interrelated; and what rules and processes account for their form, meaning, and behaviour. The linguistic model adopted for the description is the structural-functional model – a model associated, in the Anglo-American linguistic world, with scholars such as D. Bolinger, C. Butler, R. Huddleston, M. A. K. Halliday, J. Lyons, P.H. Matthews, R. Quirk at al., R. Stockwell, amongst others. Anyone who has taken a university course in English grammar or English linguistics will be familiar with the principles of this model. (For a recent, excellent application to the Grammar of English, see the series published by the U. of Granada, *English Grammar in Focus*: *Words and Morphemes* (2015), *The Phrase* (2018), edited by J. Santana Lario). Mindful, however, of the shortcomings of the structural-functional model, the descriptive framework is supplemented by another perspective: the cognitive-linguistic model, one of the most influential schools in contemporary linguistics, typified, in the Anglo-American world, by the pioneering work of G. Lakoff, M. Johnson, R. Langacker, L. Talmy, G. Fauconnier, G. Geeraerts, amongst others. Cognitive-linguistic investigations help clarify one of the most challenging issues in lexical-semantic description: the relationship between language, mind, and meaning.

In terms of theoretical content, the book covers the basic topics discussed by the foremost pioneering and contemporary Anglo-American and European semanticists and lexicologists: L. Bauer, D. Bolinger,W. Chafe, E. Coseriu, D. Cruse, C. Fillmore, H. Geckeler, P. Guiraud, M.A.K. Halliday, D. Kastovsky, G. Leech, L. Lipka, J. Lyons, L. Martín Mingorance, F. Palmer, J. Sinclair, S. Ullmann, U. Weinreich, G. Wotjak, to mention some of the most influential linguists in contemporary linguistics. The works of these linguists furnish the primary, baseline information for the contents of the book; they are duly cited at the end of each chapter under Further Reading. Other seminal, specialized, and recent works are suggested in the bibliographical list in anticipation of further advanced study. These works are intended to furnish students with complementary sources of information at a deeper level than the level imparted by the book, including theoretical issues raised by alternative models, theories, and approaches. (By the way, most of the references cited in this book are available at the University of Granada's electronic bibliographical databases).

Needless to say, though the book strives to present the essentials of lexicology and lexical semantics as objectively as possible, it inevitably reflects the author's personal bias. The subjective viewpoint is evident not only in the organization of the subject matter (see below) but also in the interpretation and treatment of some issues and data as well as in the use of some linguistic terminology. With regard to the pedagogical aspect, the author has chosen to set out this aspect in a single, separate section at the end of the book (see Appendix: Exercises). Organized around the most important

topics discussed in every chapter, this section includes a series of study, discussion, and review questions, accompanied by a bank of exercises, tasks, and activities. These are complemented by the lexical analysis of a short text.

The didactic section should be regarded as a sort of 'menu' which teachers imparting the subject may draw upon to meet several didactic objectives: to introduce topics; to raise awareness of issues; to review, practise, consolidate, and expand the theoretical knowledge imparted in the chapters; and to quiz and test the students' level of knowledge. Though the didactic section is fundamentally geared to the application of the theoretical material covered in each chapter to new data, it is perfectly compatible with the more practical objective of improving the student's vocabulary proficiency skills, in keeping with the idea that declarative (theoretical) knowledge and procedural (proficiency) knowledge always go hand in hand and feed into each other. In any case, the didactic section should be regarded as an optional tool: teachers may freely draw upon the great wealth of materials available not just in the field of theoretical and applied lexicology (for an exemplification, cf. L. Bauer's workbook *Vocabulary* (1998), but also in the field of vocabulary teaching methodology (cf. R. Carter. *Vocabulary: Applied Linguistic Perspectives* (1988); E. Hatch and C. Brown. *Vocabulary, Semantics, and Education* (1995); N. Schmitt and M. McCarthy. *Vocabulary: Description, Acquisition, and Pedagogy* (1997); S.A. Stahl and W. Nagy. *Teaching Word Meanings* (2007); V. Schnitt. *Researching Vocabulary* (2010); I.S.P Nation. *Teaching and Learning Vocabulary*; B.J. Blake (2019). *English Vocabulary Teaching* (2013).

With regard to content organization, the book consists of three parts. Part One introduces the theoretical background necessary to pave the way for an understanding of the place of lexicology in descriptive linguistics. Part Two discusses the fundamentals of structural lexical semantics. And Part Three complements the structural perspective with an alternative perspective: the cognitive-semantic perspective. The topics in the three theoretical parts are organized into eight chapters, whose contents are briefly reviewed below.

Chapter One introduces the theoretical framework adopted by the book. After discussing the goals and methodology of theoretical-descriptive linguistics, the chapter introduces the structural-functional model and discusses the place of semantics within descriptive linguistics as a step to approaching lexicological description. (Readers or students familiar with this theoretical background —or with the structural-functional model— may skip this initial chapter.)

Chapter Two offers a general introduction to Lexicology. After mentioning the goals of lexicology, the chapter identifies the main areas (fields) of lexicological investigation, namely lexical semantics, lexical morphology, lexical phonology, lexical grammar, lexical variation, diachronic semantics, and lexicography. As well, the chapter identifies and delimits the key units operating in lexicology. The chapter concludes with an overview of the internal organization of the lexical component (lexicon).

Chapter Three initiates the description of (structural) lexical semantics, the central focus of the book. After discussing the nature of lexical signification and the various perspectives that may be adopted in lexicological analysis: extensional-intensional, relational, and cognitive, the chapter explains the fundamental functions of lexical signification: denotation, sense, connotation, and reference, and discusses the issue of lexical definition, particularly the pros and cons of the method of Componential Analysis, i.e. definition of words by lexical decomposition.

Chapter Four initiates the relational perspective by introducing a typology of lexical relations, beginning with paradigmatic relations (i.e. relations of substitution and contrast), followed by syntagmatic relations (i.e. relations of combination and association). The chapter further discusses the two chief approaches to the study of paradigmatic relations, namely: (a) semasiology (i.e. form-to-content analysis) and (b) onomasiology (i.e. content-to-form analysis). Form-to-content relations are classified according to two criteria: (i) symbolic motivation, and (ii) form-content similarities and differences. In turn, onomasiological relations are classified according to four criteria: (i) categorial content (lexical class); (ii) sememic content (lexical field); (iii) sense implication (sense relations); and (iv) sense association. The chapter ends with a description of the principal semasiological (form-to-content) relations: onomatopoeia, polysemy, homonymy, paronymy, and homomorphy.

Chapter Five takes up onomasiological relations by describing, firstly, the categorical content of lexical classes: nouns, adjectives, verbs, and adverbs, and secondly, the sememic (more technically: noematic) content shared by lexical words, traditionally called lexical fields, including the following major types: paradigmatic sets, taxonomies, clusters/networks, and other minor groupings of lexical words: scales, ranks, and cycles.

Chapter Six continues the study of onomasiological relations by considering, firstly, logical relations, or sense relations, based on implication entailment, including: synonymy (relations of equivalence), antonymy (relations of opposition), hyponymy (relations of inclusion), and meronymy (part-whole relations); and secondly, metalogical relations, or associative relations, based on presupposition entailment.

Chapter Seven describes syntagmatic relations. After discussing the criteria for identifying and distinguishing lexical units from grammatical and collocational units, the chapter applies these criteria to a variety of lexical syntagmatic units, called multi-word units: set expresions (periphrastic verbs, prepositional verbs, phrasal verbs), and idiomatic expressions.

Chapter Eight deals with the cognitive-semantic perspective. It reviews the principal tenets of the cognitive-linguistic model (vis-à-vis the structuralist and the Chomskyan models); applies the tenets to a variety of lexicological units; and extends the application to lexical-syntactic and lexical-pragmatic description. The chapter concludes with some general considerations concerning the relationship between language, thought, and culture.

Methodologically, each chapter of the book follows the standard procedure of all linguistic description, which requires two fundamental 'ingredients': a linguistic model and samples of data. The model has been indicated above. With regard to data, these have been collected from a variety of sources: fiction and non-fiction works, newspapers, internet resources, informants' judgements, linguistic corpora, and encyclopaedias and dictionaries (N.B. most of the glosses and definitions given throughout the book have been taken from the physical and the electronic works associated with the Oxford English Dictionary lexicographic series, particularly the OED on Historical Principles, the Concise OED, the Shorter OED, and the Compact OED).

PART I
TOWARD LEXICOLOGY

CHAPTER ONE
THEORETICAL BACKGROUND

1.0 This chapter provides the theoretical background necessary for understanding the place of Lexicology and Lexical Semantics in Theoretical-Descriptive Linguistics. The discussion develops several topics: the goals and methodology of Theoretical-Descriptive Linguistics, including the development of lexical studies; the nature of language, as viewed by the structural-functional model; the place of lexis within the structural-functional model; and the relationship of Descriptive Linguistics to Semantics, the branch of linguistics dealing with Meaning in all its manifestations.

1.1. Theoretical Linguistics

Linguistics is the scientific field concerned with the investigation of the nature of language. To account for this nature, linguists build theoretical models, i.e. (simplified) versions of how language, in general, works, based on the observation of particular languages. Although empirically-based, a theoretical model is first and foremost an abstraction of reality: the result of a series of inductive processes of generalization made on the basis of some elicited, collected data, subjected to procedures of observation and analysis. But a theoretical model is also a deductive process: it makes certain predictions that are applicable to new data. Hence a linguistic theory embodies a system of hypothetic-deductive ideas about the nature of language. More specifically, a linguistic model explains the general properties of language, or one specific aspect of language: the phonological, lexical, morphological, syntactic aspect, by describing its fundamental units, classes, categories, systems, processes, and rules. Sometimes the description is applied to more than one language, often in comparison. Other descriptions set out to test a hypothesis posited by a theory, aiming to confirm it or disconfirm it on the basis of certain language-particular data. These are first-order applications of a theoretical model. Other applications constitute second-order applications, intended for instrumental ends, e.g. pedagogical grammars.

Linguistic Schools

Theoretical models of language arise within the framework of a linguistic school. A linguistic school —e.g. structuralism, functionalism, generativism, cognitivism, to name but the most influential ones in contemporary linguistics— embodies a general perspective on the nature of language, usually associated with certain ideas about the nature of mankind, of mind, and of society. Each linguistic school has a historical background and an evolutionary timeline, the description of which, together with that of the competing schools, is the subject of the history of linguistics.

In contemporary theoretical linguistics, up until the advent of the Chomskyan revolution in the mid-twentieth century, the most influential linguistic school was structuralism. By approaching the descriptive work in a scientific (empirical) rather than an intuitive manner, structuralists sought to overcome the shortcomings of the earliest traditional schools, which,as a rule, explained the nature of language on the basis of ideas and notions passed down by classical, medieval, and nineteenth-century scholars. Guided by the central idea that every language has its own structure (a structure that may be partly shared by other historically-related languages), the purpose of a structuralist model is to discover and describe this structure. The methodological techniques employed, called discovery procedures, consist, fundamentally, in the taxonomic segmentation and classification of the linguistic elements, classes of element, and structural patterns operating in the language. In the US, early structuralism was heavily influenced by the behaviouristic school of psychology, a school that maintained that the notion of meaning is too vague, obscure, and mysterious to be taken as a reliable source of information to describe the nature and structure of language. Consequently, early American structuralists emphasized the formal aspects of language at the expense of the semantic ones – the exception was the school of linguistic anthropology which studied the ethno-semantics of Native American languages. By contrast, across the Atlantic, early European structuralists developed a version of linguistic description that incorporated semantic aspects of language, including relational, social, and contextual aspects.

With the advent of the Chomskyan revolution, the focus of linguistic investigation shifted from the inductive analysis of the surface structure of languages to the deduction of the design principles underlying all languages. More specifically, the Chomskyan generative project aimed to explain the nature of language by invoking a biologically-based (innate) mental faculty which, when exposed even to scant linguistic experience, develops naturally (from childhood onwards) into the creative ability to generate the structure of any language. Guided by this so-called language acquisition device (LAD), children discover, effortlessly and rapidly, the design of their first language by activating the internal Universal Grammar (UG), a kind of blueprint version of all languages. The UG provides all the parameters necessary for explaining the design properties of all languages, with each language setting the parameters in its own particular way; for

example, though all languages have subjects, Spanish, unlike English or French, is a pro-drop subject language.

Chomsky's assumptions, which led him to announce that "linguistics is a field of cognitive psychology", were soon challenged by two allied schools: functionalism and cognitivism. Functionalists (a variegated camp which includes systemic grammarians, sociolinguists, anthropolinguists, pragmaticians, textlinguists, and literary critics) criticized Chomsky for his staunch defence of the idea that syntax is the central component of language and that language must be studied as an autonomous system, disconnected from any communicative, social, cultural, and contextual influences (these influences were regarded by Chomsky as being 'external linguistics'). To functionalists, the generative programme smacked of old structuralism in a new guise. Cognitive linguists soon jumped on the anti-Chomskyan bandwagon. Though they did not question one of Chomsky's basic tenets: that in order to understand language we must first understand the mind and the brain (after all, language is a product of the mind-brain), they did question one of his most cherished claims: the innate hypothesis. They countered this hypothesis with an alternative one: language cannot be understood solely as an innate biological module, separated from its experiential, social, and cultural environment. Rather, language grows out of the interaction between innate biological mechanisms and the experiential and social environment nursing it. In this regard, cognitivists incorporate aspects of language that had been anticipated by functional linguists, particularly the importance of meaning and the influence of context, as well as the functions of language in communication and social interaction. Hence the close interrelationship between linguistics, psycholinguistics, and social anthropology so favoured by cognitive linguists.

Contemporary Linguistic Models

It is unquestionable that contemporary theoretical linguistics is far from presenting a unified field, as the proliferation of linguistic models testifies: structural-functional (systemic) grammar, functional grammar, lexical-functional grammar, role-and-reference grammar, construction grammar, cognitive linguistics/grammar, minimalism/optimality theory, to mention only the most prominent ones. Though some of these models are more influential than others, all of them compete for the dominant spot in the field. And since the assumptions, hypotheses, and methodology offered by each model are rarely, if ever, taken into account by alternative models, it is hardly surprising that the descriptions of particular languages based on these models turn out to be so incompatible. This situation is true of each of the components of language into which linguistic description is usually divided: the phonological, the lexical, the syntactic, and the discursive-pragmatic components. Phonologists, lexicologists (including morphologists), syntacticians, and pragmaticians are constantly engaged in (sometimes, heated) debates on many theoretical and methodological issues.

Semantics: Lexical Models and Lexical Meaning

One of the foremost issues linguistic models seek to explain concerns the nature of meaning - the field of Semantics. Though seldom defined, most linguistic models conceive of meaning as a semantic property borne by linguistic units operating at a specific level of language, hence the distinction between: lexical, grammatical, textual-discursive, and pragmatic meaning. Accordingly, a linguistic expression, when described semantically, appears as a complex tapestry made up of several strands, each strand contributing, in a compositional way, to the overall semantic import of the expression. Teasing out the strands is the job of the linguist, more specifically, the semanticist.

By focusing specifically on one of the strands – lexical meaning – it is not difficult to note the wide variety of interpretations that have been offered to account for its nature. What is the meaning of a word? How do words mean? Here is a partial list of possible interpretations:

—the relationship between a word and the referent 'picked out' by the word;
—the relationship between a word and other words within the whole language system;
—the contribution of a word to grammatical, textual, discursive meaning;
—the relationship between a word and the intentions of speakers in a context of communication, including the socio-cultural context;
—the conceptual-epistemic (knowledge) understanding activated by a word in speakers' minds.

The various interpretations on the nature of lexical meaningitemized above reveal a number of fundamental, recurrent semantic perspectives:

—meaning and reality (language, truth, reference);
—meaning, language system, and linguistic context;
—meaning and communicative context (language use and language interpretation);
—meaning and mind (concepts, knowledge, understanding).

Lexical Studies

A cursory glance at the field of lexical studies confirms the diversity of theoretical approaches and orientations in this area of contemporary linguistics. Across theories and models, debates on lexical matters revolve around a number of fundamental issues:

(a) the nature of lexical meaning;
(b) the overall organization of the lexicon;
(c) the key operative lexical units;
(d) the relationship between lexicon and grammar;
(e) the role of cognition, experience, and culture.

Even within the same linguistic model, theoretical and methodological debate is pervasive. Take the generative model: from the earliest standard (transformational) model (1965) up to the current, minimalist program, the status of the lexicon has gone through a series of developments and re-orientations. In the standard model, the lexicon was treated as a list of lexical items appended to the syntactic component; here, lexical items were treated as potential elements to be inserted in a syntactic derivation after the operation of certain transformational rules, in charge of converting the deep structure of a sentence into a surface structure. The information assigned to each lexical item in the lexicon (lexical entry) amounted to this: a lexical class label (noun, verb, adjective, adverb) plus some semantic features (called markers and distinguishers) specifying the meaning of the lexical item in question, e.g. *woman* (n) (+human, -male), complemented by a set of subcategorization features, e.g. [+- countable] and some selection restrictions, e.g. [+- animate], which constrained and anticipated the potential syntactic behaviour of the lexical item in question; if the lexical items is polysemous (e.g. *bachelor*: 1. unmarried male person; 2. person with a university degree), the entry included a series of interrelated specifications. Modifications were soon proposed to accommodate criticisms levelled at the standard model by alternative approaches. Generative semanticists (1970) proposed that semantic information should be included in the deep structure of a sentence in the form of semantic primitives, a move which blurred the distinction between lexical items and sentences (e.g. *kill* = CAUSE TO DIE); the extended standard model (1975) empowered the lexicon with the capacity to specify some lexical relations, e.g. redundancy rules (e.g. +human => +animate) and word-formation rules (e.g. [destroy$_{v}$+ -ion] > [destruction $_{n}$]). The break with the standard model came with the functionalist-lexicalist model (1978), an approach which eliminated transformational rules altogether and enriched the power of the lexical component. The next decade saw new theoretical developments: trace theory, X-bar syntax, government and binding, Universal Grammar (1986). In these developments, the role of the lexicon increased in importance. In the government and binding model, for example, lexical items had associated with them a list of thematic roles (theta-roles) such as Actor, Theme, etc., e.g. *buy* (v) (Actor, Theme): e.g. *she bought a book*. The advent of the minimalist model in the mid-nineties (1993) brought on a radical departure. This model (alternatively branded optimality theory) simplifies the whole generative apparatus by positing a modular interaction between the innate language faculty and other non-linguistic faculties, specifically the cognitive faculty and the sensory-motor faculty. The current version of the model contemplates only two types of interface operation: (a) one between the language faculty and the cognitive system, yielding the lexical-semantic and semanto-syntactic representation of sentences (including their logical form); and (b) another between semantic structures and the sensory-motor system, yielding the phonological representation of sentences.

Meanwhile, in parallel to, or in the wake of, these generative developments, debates on the status of the lexicon in relation to the syntactic system spawned a series of models capable of competing neck and neck with the generative model. Early on, case grammarians (1968) had argued for the inclusion of relational and thematic information (semantic roles) in verbal lexical entries, e.g. *break* (v) (Agent) (Object) (Instrument); in this way, verbs were treated as a kind of syntactic germ from which sprang full-blown syntactic constructions, e.g. *someone opened the door with a key*; *the key opened the door; the door was opened; the door opened*. This idea was picked up and developed by other models: frame semantics (1977/80), functional grammar (1978), functional-lexematics (1987), and construction grammar (1996). In these models, syntactic configurations are treated as an 'outgrowth' of core lexical-predicative configurations, and syntactic constructions are assigned properties until then reserved only for lexical constructions. At the same time, advances in cognitive science, focused on the exploration of the psychological reality of linguistic structures, triggered the rise of new approaches to the study of the lexicon, materialized in psycholinguistic-based and computationally-oriented models such as procedural semantics, augmented transition networks, relational-connectionist models, and Word Net.

A similar situation to the one cursorily described above for generative models could be painted for other linguistic models, whether of structuralist, functionalist, or cognitivist stamp. Of course, such theoretical 'tugs of war' are part and parcel of the business of science. All scientific fields are riddled with cycles of innovation and turmoil/revolution, tradition and critical divergence. The positive outcome is that, amidst such 'linguistic wars', theoretical descriptions of particular languages (with English holding pride of place) have not only contributed a wealth of studies to the understanding of the major components of language (phonology, morphology, syntax, lexicon, discourse, and pragmatics), they have also inspired the development of such hybrid and applied disciplines as textlinguistics, sociolinguistics, anthropolinguistics, psycholinguistics, computational linguistics, and corpus linguistics.

After this summary overview and assessment of contemporary linguistics, we now proceed to introduce the theoretical-descriptive framework adopted by this book, a task undertaken in the next section.

1.2. The Structural-Functional Model: An Outline

As indicated above, historically, the structural-functional model arose as an attempt to overcome the shortcomings of both the traditional and the early structuralist schools. It achieved this goal by incorporating descriptive models from the European functionalist schools, particularly, the Geneva school, the Prague school, the Copenhagen school, and the London school —the latter, represented by the seminal work of J.R. Firth and M.A.K. Halliday. Rather than rely on intuitive notions about the nature of language; prescriptive ideas about correct and incorrect usage; or mechanical

(meaningless) taxonomic techniques of segmentation and classification, the structural-functional linguist seeks to describe all the properties of the linguistic units operating in the language system, including (a) their formal structure (immediate constituents, level and rank of operation, classes and sub-classes); (b) their functional behaviour, including relational, distributional, and contextual behaviour; and (c) their meaning (semantic) properties. Methodologically, these goals are accomplished in two fundamental ways: (i) by collecting linguistic data produced by actual speakers, whose performance reflects the contextual variability (dialectal, social, stylistic) of language use; and (ii) by subjecting the data to systematic, analytical procedures, together with diagnostic, operational tests to interpret and disambiguate conflicting and confusing data.

The Structural-Functional View of Language

As conceived of by the structural-functional model, a language is a system of formal-semantic units organized around three fundamental planes: (a) sounds, (b) signs, and (c) code. To each plane corresponds a level or component: phonological, lexical, and grammatical, the latter with two sub-components: morphology and syntax, the fomer straddling the lexical and the grammatical components. Within each level/component operate specific linguistic units, arranged along a rank-scale of progressive (or, alternatively, hierarchical) complexity: phoneme > morpheme > word > phrase > clause > sentence. Progressive complexity means that higher-rank units are constituted by lower-rank units and that a given unit (e.g. a word, a phrase, or a sentence) will display degrees of internal complexity in terms of immediate constituent structure.

Except for phonological units (which provide the physical support of the whole language system), the purpose of all the linguistic units is to express some meaning, that is, to express some semantic content. Thus every unit in the system constitutes a specific type of formal-semantic mapping, i.e. a pairing of a form and a meaning. In this way the levels/components (and sub-components) can be understood as different ways of organizing meaning at increasing levels of formal-semantic complexity. This implies that semantics is a dimension cutting across all the levels/components. Consequently, there are as many types of meaning (and, hence, semantics) as there are units and levels: lexical meaning, morpho-lexical meaning, morpho-syntactic meaning, and syntactic (phrasal, clausal, sentential) meaning.

The overall design and organization of language is depicted in Fig. 1.1 below. A short fleshing-out of the contents of each of the planes/leves is offered in the following paragraphs.

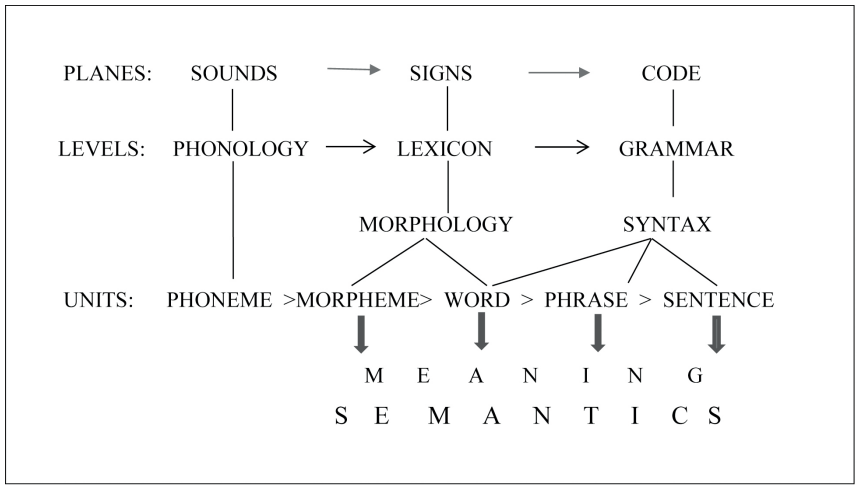


Fig.1.1 The Structural-Functional Model

The Plane of Sounds

The first linguistic plane, which corresponds to the phonological level/component, contains the units of sound. The key linguistic units operating in this plane are the phonemes, the minimal functional units of sound (with contextual variations, called allophones). Every language consists of a finite inventory of phonemic elements, including: vowels, consonants, semi-vowels/semi-consonants, and dipththongs/glides. These units are described in terms of distinctive phonological features (point and manner of articulation), syllabic structure, and stress and intonation patterns. Other descriptive elements include phonotactic (combinatory) processes and morphophonemic processes; the latter explain how the sound units, interacting with other components, particularly the lexical-morphological and the morpho-syntactic components, produce morphemes and words.

The Plane of Signs

The second linguistic plane corresponds to the lexical level, which contains the stock of lexical units in the language. At this level, lexical units are described in terms of their full set of semantic (meaning) properties, as well as some attendant phonological/orthographic and grammatical properties, such as pronunciation, spelling, and potential grammatical behaviour. The lexical level, however, is not just an (open-ended) list of all the attested lexical units in the language. Apart from the fact that it can be organized conceptually rather than alphabetically, the lexicon includes a sub-component, a kind of 'workshop' whose function is to fashion new lexical units out of existing ones thanks to

the operation of word-formation rules (WFRs); here, lexical-morphological processes are essential. For instance, the lexical unit *doggy* is formed by attaching the suffix *-y* to the base unit *dog* in order to produce the signification 'diminutive of dog/child's word for dog'. Affixal elements such *–y* in *doggy* constitute linguistic units (morphemes) in their own right; as such, they are listed in the lexicon and organized in terms of meaning, productivity, frequency, and conditions of usage. Affixation (prefixation and suffixation) is not the only way to form lexical units of greater complexity than simple words; other productive word-formation processes include: compounding (e.g. *sheepdog*) and conversion (e.g. *fish* > *to fish*). Non-concatenating processes include clipping (e.g. *fan,* derived from *fanatic*), blending (e.g. *brunch*, derived from *breakfast* plus *lunch*), back-formation (e.g. *televise,* derived from *television*), and abbreviation/initialism/acronymy (e.g. *DNA,* from 'deoxyribonucleic acid'; *AIDS,* from 'acquired immuno-deficiency syndrome'; *radar,* from 'radio arrangement and ranging'.

Word-formation, however, is not the only process capable of increasing the stock of lexical units in a language. Besides borrowing from other languages (e.g. *siesta, soufflé, tsunami*), the inventory of lexical elements may be enriched by such word-creation processes as onomatopoiea (e.g. *hoot*), eponymy (e.g. *sandwich*), and trademark innovations (e.g. *nylon*).

The Plane of Code

The third linguistic plane corresponds to grammar. Grammar is the linguistic component in which lexical elements (belonging to the major lexical classes: nouns, verbs, adjectives, and adverbs) and non-lexical elements (including the minor classes of function word: articles, demonstratives, pronouns, prepositions, auxiliary verbs, modal verbs, etc.) combine in rule-governed ways to form units of signification greater than lexical units, such as grammatical words, phrases, and clauses/sentences. To be recognized as significant, these combinations must follow certain assembly and construction rules. These rules enable speakers to create meanings greater than a single word, helping them to describe all kinds of situations, occurrences, and states of affairs related to the present, the past, the future, and even to possible, imaginary worlds. At the same time, grammar makes it possible to inform, to question, and to negate such descriptions, evaluations, and imaginings. In sum, grammar is the recursive, rule-governed system that makes possible the symbolization of verbal thoughts more complex than thoughts about entities, qualities, events, and circumstances, i.e. thoughts describing referents and situations.

It may be useful at this point to characterize briefly some of the general semantic differences between lexical units and grammatical units. Whereas the lexicon permits the expression of significations whose chief function is the designation of all manner of extra-linguistic objects and experiences, grammar permits the expression of many types of functional and descriptive significations, ranging from morpho-syntactic

significations, such as number (e.g plural: *dogs*) and degree (e.g. superlative: *happiest*), to predicative (sentential) significations, such as copulative sentences (e.g. *the dog is happy*), transitive sentences (e.g. *the dog bit the cat*), or passive sentences (e.g. *the dog was scratched by the cat*), through syntagmatic and phrasal significations, such as determination (e.g. *these dogs*), modification (e.g. *a cute dog*), qualification (e.g. *the dog in the yard*), and complementation (e.g. *a book on dogs*). Further, whereas the stock of lexical significations can be itemized as an open-ended list (inventory), no such listing is possible for the phrasal or for the sentential units afforded by syntax. Instead, the rules that 'generate' the combination of elements conveying grammatical significations, together with the constraints operating on them, can be deductively enumerated by means of a system of recursive (rewrite) rules, for example:

S → NP + VP (+ NP)
NP → (Determiner) + (Pre-Modifier) + Head + (Post-Modifier)
H → N
Pre-Modifier → Adjective/Noun
Post-Nodifier → Complement / Qualifier
Det → Article/Demonstrative
(…)

Such rewrite rules work both like an algorithm that generates and specifies an infinite number of outputs and like a mechanism that parses (analyzes) the internal structure of these outputs in terms of 'slots' and 'fillers'. Additionally, the rules of grammar are not directly observable, at least not in the way lexical elements are; they are inferred and abstracted from linguistic data produced by speakers of the language and deduced as regularities. This information can be elicited, gathered, and analyzed in systematic ways, producing corpora of data that serve as direct resources for further linguistic analysis, an activity that is systematically pursued by the field known as Corpus Linguistics.

Structural-Functional Operations

Apart from ground rules for building the basic constructional units of a language, the grammatical system includes structural-functional operations for expanding, elaborating, reducing, rearranging, and reformulating any type of constructional unit. Such operations produce formal-semantic correlations, downgrading / upgrading (rank-shift) transpositions, and structural-semantic transformations within and across the two principal levels. For example, the noun phrase *the teacher of linguistics* can be transformed into the correlative noun phrase *the linguistics teacher* by means of the following transpositional operation: Determiner + Head + Complement => Determiner + Classifier + Head. Further examples can be given: *the dog that is sleeping* => *the sleeping*

dog; the decision made by Mary => Mary's decision. Multiple chains of correlations are possible, e.g. *a letter that mentioned her name => a letter mentioning her name => a letter with a mention of her name*. Some operations elaborate a construction by embedding another, dependent construction, e.g. *I hope that she will pass the test.* Other operations move in the opposite, reductive direction, creating, for instance, a correlation between a lexical-syntactic structure and a morpho-lexical unit, e.g. *I cut the cake with a knife => I sliced the cake; he made her angry => he angered her*; *he walks dogs => he is a dog-walker*. Yet other operations involve more transformative operations, such as extraposition and raising, e.g. *that England will win the match is likely => it is likely that England will win the match => England is likely to win the match.* Passivization is a special transformation that correlates an active and a passive sentence by changing the functional perspective of the sentences in terms of the roles of subject and object: cf. *the girl patted the puppy => the puppy was patted by the girl*.

Form-Meaning Mapping: Zero Forms, Empty Forms,Redundant Forms

As indicated earlier, all linguistic units constitute form-meaning mappings, i.e. pairings of a formal element and a meaning. But these mappings are not always transparent or predictable. In some mappings, for example, the meaning is implicit (covert) rather than explicit (overt). Thus the singular meaning of nouns has no explicit exponent: the bare form of the noun conveys this meaning implicitly. Such cases can be explained by resorting to the notion of 'zero morph', that is, a formative (morpheme) with no explicit physical shape, e.g. *dog* = [DOG + SINGULAR > 0]. Further, some forms carry no (overt or covert) identifiable semantic import. What is the signification of the pronoun *it* in *it rained*? Semantically, this form does not stand for anything, it just performs a 'formal-functional' role: 'subject marker' – a necessary role in English clauses. Forms devoid of semantic content sometimes occur as part of lexical elements. Thus historical evidence tells us that *–ledge* in the word *knowledge* existed in Old English as a suffixal form associated with some verbs (cf. the extant *acknowledge*) but this form became obsolete and fossilized in the course of time and now it is empty of signification.

Form-meaning mapping is further compounded by the existence of redundant forms. For instance, the grammatical meanings 'past tense' and 'past participle' of regular verbs share the same formal realization: *-ed*, as in *looked*, an ambiguous situation known as a homomorphy. Homomorphs are ambiguous, cf. *cleaner* = (1) 'someone who cleans' (lexical meaning) / (2) 'more clean' (grammatical meaning). When homomorphy operates in the lexicon it is called homonymy. Homonyms can be absolute or partial; *bank* ('financial institution') and *bank* ('side of the river') are absolute homonyms because, apart from their being semantically independent (etymologically, one comes from Old Norse, the other from Italian), the two forms belong to the same lexical class. On the other hand, *grave* ('burial place') and *grave* ('serious') are partial homonyms because they belong to different word-classes. Homonymy must be distinguished

from polysemy, the case of a single lexical form expressing more than one interrelated, complementary meaning, e.g. *foot*: 1. 'lowest part of the leg'; 2 'unit of measurement: length, height)'.

Constraints

The rules of the language system specify not only what is possible (well-formed) in the language; they also set negative limits, or constraints, on what is impermissible or unacceptable. Many virtual possibilities of form-meaning mapping are disallowed, restricted, and even blocked - although alternative correlations may exist side by side. For instance, whereas the gradable adjective *happy* can be inflected to express the signification 'comparative degree' (*happier*), the adjective *afraid* is prohibited from expressing this meaning inflectionally (*afraider); instead, the comparative degree signification requires a different type of formal expression: a phrasal unit: *more afraid*, with the degree adverb marking the comparative degree. Moreover, syntactic distributional possibilities may be highly or partly constrained. As an example, compare the parallel constructions for the verbs *wish* and *want* (the asterisk indicates formal impossibility):

(1a) *I wish to leave now*
(2a) *I want to leave now*
(3a) *I wish I knew what is going on*
(3b) **I want I knew what is going on*
(4a) *I wish I were wiser*
(4b) **I want I were wiser*
(5a) *I wish you would be happier*
(5b) **I want you would be happier*

In sum, the structural-funcional model conceives of the language system as a mechanism that, on the one hand, produces what is properly well-formed, possible, and acceptable in the language, in terms of form-meaning mapping, and, on the other, constrains, disallows, or rules out what is ill-formed, impossible or unacceptable. The corollary is that, when describing a language, the structural-functional linguist describes only the structures properly formed by the rules of the system, including plausible, hypothetical, and unattested structures. Any ill-formed, disallowed, or impossible structures are not recognized as being part of the system.

Lexico-Grammar

As we have seen, in the structural-functional model, lexicon and grammar constitute the two principal planes/levels of formal-semantic organization. However,

these levels are not water-tight compartments: they form a kind of continuum, or interface, known as lexico-grammar. This entails that the lexical and the grammatical levels hold a systematic, fluid, interwoven relationship. This relationship can be demonstrated in several ways.

Consider the meaning 'negative': Is this meaning lexical or grammatical? The following examples: (1) *this is not important*; and (2) *this is unimportant* demonstrate that 'negative' can be expressed in two ways: in (1) by means of an independent operator: *not* (a functional-grammatical element), and in (2) by means of a lexical morpheme: *un-* (a prefix). In other words, the same meaning can be expressed either grammatically (syntactically) or lexically (morphologically). Or take the meaning: 'of an action: performed to an undesirable degree'. This meaning can be expressed in three ways: (1) by the prefixal element *over-*, e.g. *to overeat*; (2) by the lexical adverb *excessively*, e.g. *to eat excessively*; or (3) by the adverb phrase *too much*, e.g. *to eat too much*. In short, one and the same meaning can be expressed by means of three different formal devices operating at different ranks and levels within the language system.

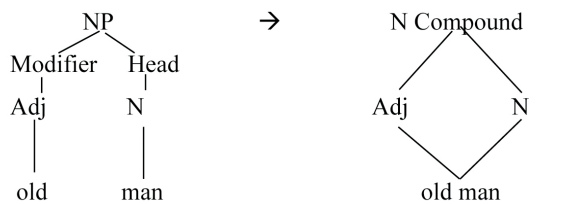
Consider now the behaviour of morphological (formative) elements. While some formatives enjoy a strictly lexical status, e.g. –er: *jog(g)-er*: Agent: 'someone who jogs'; or a purely grammatical status, e.g. –s: *jogger-s*: Plural: 'more than one jogger', other formatives enjoy a mixed or an in-between status. Take, for example, *–ed* and *–ing*. An *–ed* formative may be variously used (i) as a grammatical verb form, e.g. *he was wrongly accused of the crime* (past participle); (ii) as a participial adjective, e.g. *the accused man*; or (iii) as a lexical (singular or plural) noun, e.g. *the accused*. For its part, an *–ing* formative can be used (i) as a grammatical verb form, e.g. *she was smoking*; (ii) as a verbal noun, e.g. *smoking is bad for you*; (iii) as a nominal modifier-classifier, e.g. *smoking room* (= 'a room for smoking'); (iv) as an adjectival modifier, e.g. *smoking meat* (= 'meat that is "smoking" ', i.e. giving off smoke because it is burnt); or (v) as a lexical form, nominal or adjectival, e.g. *an interesting building*. These examples demonstrate that morphology contains formal units that straddle the lexical and the grammatical levels of formal-semantic organization.

Lexicalization and Grammaticalization

The lexico-grammatical interface entails that grammatical elements may become lexicalized, and, viceversa, that lexical elements may become grammaticalized. Historical evidence shows that some forms that had once emerged as grammatical elements at some point became lexical elements, and the other way round. For instance, the present participle form of the verb 'to go', *going*, as in *I'm going to the beach,* took on a modalized, future-oriented (intentional) meaning, as in *I'm going to attend the meeting*; and the lexical verb 'to need' (= 'to want something'), as in *do you need a new pair of shoes*?, not only developed a deontic modal meaning (= 'to be under obligation'), it adopted the syntactic behaviour of modal verbs, cf. *need I go to the meeting?* Further

evidence can be adduced by specific cases such as the following: *news,* a substantivized, inflected form converted from the adjective *new*, which functions as a lexical word; and *ex-* and *–ism*, derivational affixes converted into nouns, cf. *my ex*; *the isms of this century.*

Further demonstration of the lexico-grammatical interface can be adduced by looking at co-occurrence (combinatory) relations. Take, for instance, the adjective *old* and the noun *man*. These lexical units can co-occur either as members of a single noun phrase expressing the signification 'a man who is old', or as members of a compound expressing the signification 'father' or 'husband'; the former is a grammatical unit, the latter is a lexical unit. Clearly, the compounded word is the lexicalization of the phrasal structure. (See tree-diagrams below).



Systemic Relations: Syntagmatic and Paradigmatic

In the structural-functional model of language, all linguistic units operating in the system are available as virtual, potential choices. Two chief kinds of choice are of paramount importance: syntagmatic and paradigmatic choices. The term paradigmatic entails the notion of paradigm: a set of alternative elements having in common some formal, functional, or semantic features that bind them as potential substitutes for expressing some signification. In turn, the term syntagmatic derives from the notion of syntagma: a co-occurrence (or linear combination) of previously independent items. For an illustration, consider the following string: *she bought a new car*. One can choose a number of words as potential substitutes for the item *car*, e.g. *motor vehicle, automobile, convertible*…These substitutes, all of them members of the class of countable noun, stand in a paradigmatic relation (of inclusion, or hyponymy, and of equivalence, or synonymy) not only with the noun *car* but also with one another. Likewise, one can choose substitutes for the other words co-occurring with *car*: e.g. *purchase* for *buy*, or *second-hand* for *new*. Again, these verbs and adjectives stand in a paradigmatic relationship with one another. At the same time, further elements may be added to the string, e.g. the prepositional phrases *for her daughter* or *at the dealership*, thus augmenting the complexity of the string (see diagram below).