# REVIEWS

Patrick Hanks (ed.). *Lexicology: Critical Concepts*. Abingdon: Routledge. 2008. Ixx + 2,723 pages (6 volumes). ISBN 978-0-415-70098-6. Price: £795 for the set.

the lexicon [...] the most obvious, and it would seem the most accessible aspect of language has proved to be the most impenetrable, the most resistant to scholarly conquest

— Wierzbicka (1987)

## I. The Anthology and the Editor

Lexicology: Critical Concepts (LCC) is a remarkably comprehensive selection of papers and book extracts on different aspects of the lexicon—by philosophers, anthropologists, computational linguists, and others, ranging from the 4th century BC (Aristotle) to important contemporary lexicologists (such as Sinclair, Wierzbicka, Mel'čuk and Pustejovsky). The collection is not confined to the English-speaking world, and some of the contributors express incompatible points of view. As editor, Patrick Hanks is not trying to argue a case or develop a single, coherent point of view, but rather to present a broad spectrum of stimulating and thought-provoking reading, enabling readers to make up their own minds about what is good and what is bad. The papers and extracts in this collection provide essential reading for any worthwhile university course in lexicology, while Hanks's General Introduction offers a lively and readable overview of the whole field.

To the readers of IJL there is this added advantage: Hanks is not only a brilliant lexicologist, but also a lexicographers' lexicographer. Hanks has a nose for pinpointing exactly those contributions that are both relevant to lexicology as well as lexicography, and this without distorting the field. To lexicographers too, then, LCC is essential reading. That this is true will become clear from Section 3, but let us dwell on the first contribution: a selection of passages from Aristotle that are relevant to lexicology. Aristotle has had tremendous influence for 2400 years on thinking about the lexicon (and meaning in language, as well as almost everything else). Ironically, however, the lexicon and lexical meaning was one of the few scientific domains that Aristotle was not interested in. For him, words were a means to an end—language as metalanguage—the means by which humans can organize thinking about the physical and metaphysical things in the world—not an object of study in its own right. And yet, consider the previous issue of IJL,

where Pustejovsky's *qualia structure* is defined as follows (slightly rearranged here):

(b) CONSTITUTIVE: the relation between an object and its constituent parts;

(a) FORMAL: the basic category which distinguishes the meaning of a word within a larger domain;

(d) AGENTIVE: the factors involved in the object's origins or 'coming into being'.

(c) TELIC: the purpose or function of the object, if there is one;

- Pustejovsky and Rumshisky (2008: 339)

A structure which can be traced back to Aristotle's 'causes' (aitiai):

In one sense, then, (1) that out of which a thing comes to be and which persists, is called 'cause' [...]

In another sense (2) the form or the archetype, i.e. the statement of the essence, and its genera, are called 'causes' [...]

Again (3) the primary source of the change or coming to rest [...]

Again (4) in the sense of end or 'that for the sake of which' a thing is done  $[\ldots]$ 

- Aristotle in *Physics* (Book II, Part 3)

Moving from theory to practice, having just reviewed (cf. De Schryver 2008) *The Oxford Guide to Practical Lexicography* (Atkins and Rundell 2008), one realizes that when it comes to writing dictionary definitions, all still sounds eerily Aristotelian.

# 2. Anthology statistics

The collection of papers under review forms part of Routledge's *Critical Concepts in Linguistics* series. Each set in the series (typically 6 volumes) focuses on a different department of linguistics (morphology, syntax, pragmatics, etc.). The *Lexicography* set, for example, has already been published (Hartmann 2003), as has the *Corpus Linguistics* one (Teubert and Krishnamurthy 2007). Forthcoming in 2009, compiled by P. Hanks together with R. Giora, is *Metaphor, Analogy and Figurative Language*. Parallel subjects such as truth-conditional and logical semantics are to be found in the *Semantics* set (Gutiérrez-Rexach 2003), while other aspects such as translation and lexical equivalents across languages, or the development of word forms (historical morphology), are not regarded as central themes of LCC. In judging the present effort, one must keep these constraints in mind.

Together with the General Introduction, LCC contains exactly 100 contributions, by 122 authors. The material is spread over six volumes, 2,800 pages in all, and includes an Index in the last volume. On average each contribution is 26.33 pages long. These, and all other statistics in this review, may be derived from the data shown in the Addendum.

After Aristotle (and his late classical commentator Porphyry), there is a silence for 2000 years. According to Hanks, nothing worth reading was written on the lexicon after Aristotle until the 17th century European Enlightenment. Medieval thinkers in this area focused on activities such as working out formal logic, not investigating the grammar and structure of words, which, if they thought about it at all, they adopted largely unchallenged from ancient grammarians and philosophers. Hanks reports (*personal communication*) that he looked at the works of medieval writers such as St. Augustine, Isidore of Seville, and Maimonides, but could find nothing that he considered worth including. As a result, LCC contains only five pre-20th century contributions (Aristotle, Porphyry, Wilkins, Locke and Leibniz). The distribution across time for all other contributions in LCC is shown in Figure 1.

This graph confirms what we have always suspected: Lexicology gets serious from the 1950s onwards, and has continued to pick up momentum ever since (the dip at the end of the graph merely reflects the fact that the material collection for LCC was concluded in 2006, and so the last data point does not represent a span of ten years).

Two further facts may be derived from the data in the Addendum. The first answers the question: 'Where is the influential material in lexicology typically published?' From the pie charts in Figure 2 one sees that two-thirds appears in journals and edited collections, with only 28% appearing in conference proceedings and books. This stands in sharp contrast to the field of lexicography where, conversely, 50% appears in books and conference proceedings (cf. De Schryver 2005: 95). Based on these publishing trends, one is tempted to conclude that there is a more lively research culture in lexicology than there is in lexicography.

The second question which we may now also, tentatively, answer is: 'At what age does one write material worthy of inclusion in an anthology of lexicology?' Based on the publicly-available data, that age is 47 on average.<sup>1</sup> In comparison, lexicographers are on average four years older to make it to an anthology of lexicography (cf. De Schryver 2005: 95).

#### 3. Brief overview of the contents

Following the usual preliminary material (title pages, table of contents, acknowledgements), as well as a chronological table, LCC kicks off with Patrick Hanks's **General Introduction**. This text is an excellent essay in itself: In addition to introducing and defining the core terms in lexicology, the main

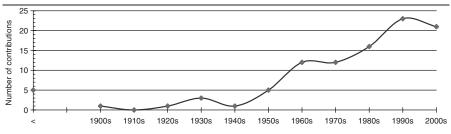


Figure 1: Contributions to *Lexicology: Critical Concepts* in a historical perspective.

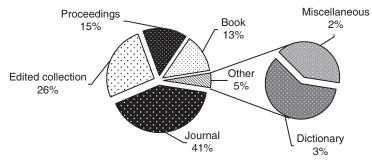


Figure 2: Sources of the contributions to Lexicology: Critical Concepts.

actors and running themes are passed in review. The frequent lexicographic excursions are a real treat.

The various contributions, called 'chapters' in LCC, have been grouped into 22 'parts'. All of these are given meaningful titles, of which the 'part' titles will be printed in bold below. Volume I, on 'Philosophy and Word Meaning', starts with 1 Foundations, bringing together Aristotle (322 BC), Porphyry (270), Wilkins (1668), Locke (1690), Leibniz (1704), Couturat (1903) and Russell (1922). Central to Aristotle is the notion that the meaning of a word is a concept that can be defined by identifying its essences (the essential properties of the kind of thing denoted), and the organization of definitions into genus term and differentia. Six centuries later, Porphyry basically only repeats all of this, incantation-like. Then comes the Enlightenment, starting with Wilkinsa man of tremendous energy-who invented Roget's Thesaurus two centuries before Roget.<sup>2</sup> Locke begins a tradition of 'musings' on the signification of words. At the other extreme, Leibniz carves up the world by means of interlinked, 'crystal-clear' definitions. This is followed by one of the gems of LCC: Couturat's overview article on Leibniz's search for a universal language, at times seen as algebra, at others as geometry-but which unfortunately never materializes. Russell makes the following important point, all too often overlooked: 'the use of the word comes first, and the meaning is to be distilled out of it by observation and analysis'. That is exactly what corpus lexicographers do when they map meaning onto use.

Part **2** Beyond Necessary Conditions brings together Wittgenstein (1953), Quine (1940), Quine (1960), Putnam (1970), Putnam (1975) and Austin (1963). We are offered a splendid selection and commentary by Yorick Wilks of Wittgenstein, with direct links to current NLP/AI research. This is followed by two of Quine's papers in the analytic philosophy tradition, and two of Putnam's, first asking the question 'is semantics possible?' (the answer is that it 'is a long way off'), and the second presenting his famous Twin Earth thought experiment.<sup>3</sup> Austin presents a distinction (performative vs. constative) and then ditches it. He is, of course, famous for his observation that the meaning of some verbs—e.g. *promise*—is a matter of performance, not truth conditions.

Part **3 Variability and Vagueness** brings together Borges (1937), Labov (1973), Wierzbicka (1986), Wierzbicka (1987) and Williamson (2001). With characteristic whimsicality, Hanks included Borges's thought-provoking satire on Wilkins's and other attempts to compile ontologies.<sup>4</sup> Rather than yet another thought experiment, Labov observes language *in use* with an experimental study regarding the denotation of cups and cuplike containers— brilliant food for thinking lexicographers. Then comes Wierzbicka, first showing that approximatives *have* a meaning (of course), then proposing a new type of dictionary for speech act verbs using a metalanguage of about 150 words (is anyone actually able to *read* the result?). Williamson's goal is to show that symbolic logic may be applied to natural language as well.

In Volume II, 'Lexical Semantics and Structures', European structuralism and American generative linguistics are the focus. Part **4 Semantic Field Theory** brings together Porzig (1934), Trier (1934), Gipper (1959) and Wildgen (2000). The first three contributions all work within the *Sprachinhaltsforschung* 'research of linguistic contents' tradition, and are available here for the first time in English translation: Porzig studies intrinsic meaning relations (e.g. *walking* requires *feet*, *kissing* requires *lips*, etc.), Trier shows how semantically related words in a language carve up the available semantic space differently at different times,<sup>5</sup> while Gipper undertakes an impressionistic test of *Sessel* 'easy chair' vs. *Stuhl* 'chair'—a precursor to Labov's cups 14 years later. Wildgen refers to all of this as a 'rather obscure part of German linguistics' and praises Giordano Bruno's 15th century 'highly developed semantic theory' instead. He also sees links between the 13th century Raymundus Lullus's relational concept and Fillmore's frames.

Part **5** Structuralist Semantics brings together Hjelmslev (1958), Pottier (1964), Coşeriu (1964) and Lyons (1968). The title of Hjelmslev's contribution is a question (cf. Addendum), to which he replies in the positive within de Saussure's framework. Pottier then suggests an 'analytical table' of new linguistics terminology (*sémème*, *classème*, *fonctème*, *virtuèmes*, etc.), while Coşeriu offers an in-depth structural approach to diachronic semantics. The capstone is the different types of sense relation discussed by Lyons, followed by a sound critique of componential analysis.<sup>6</sup>

This leads naturally to Part **6** Componential Analysis of Kinship, which brings together two magnificent studies of kinship terminology: Goodenough (1956) and Lounsbury (1964). Goodenough looks at Chuukese (spoken by about 45,000 in Micronesia) and shows how componential analysis can—despite the foregoing—be used with success to develop an empirical science of meaning, at least for kinship terms. Lounsbury is another example of the structural analysis of a lexical set, again for kinship vocabulary, this time that of the Seneca (in western New York State, whose surviving speakers number only about 200 today).

Part 7 The Lexicon in Early Generative Grammar: Markerese brings together Katz and Fodor (1963), Bolinger (1965) and Bierwisch (1967). From the first line onwards, one is put off by the infamous meta-theoretical attempt by Katz and Fodor to extend the structures of generative theory into lexical semantics. 44 pages later one is saved by Bolinger, who provides an excellent critique. Analyzing Katz and Fodor, Bierwisch nonetheless 'concludes' that there must be universal semantic markers. He then tries to pinpoint those for German adjectives. How that makes them universal is not clear.

Part 8 The Lexicon in Modern Generative Theory brings together Pustejovsky (1991) and Jackendoff (2002). Turning the work of the early efforts upside down, Pustejovsky introduces his generative theory of word meaning ('lexical decomposition is possible if it is performed *generatively*'), while Jackendoff reorganizes the theory of the role of the lexicon in grammar, structuring his account around what is stored in long-term memory vs. what is constructed online in working memory.

Volume III, 'Core Meaning, Extended Meaning', starts with Part **9** Primes and Universals, bringing together Bogusławski (1970), Apresjan (1994), Wierzbicka (1995), Pulman (2005), Corbin and Temple (1994) and Goddard (2005). Bogusławski who, together with Wierzbicka, belongs to the so-called Polish Semantic School, provides the mission statement: In search of universal semantic primitives.<sup>7</sup> Apresjan who, together with Mel'čuk, belongs to the socalled Russian Semantic School, sees both similarities and differences between the two approaches. Wierzbicka then adds (claims!) yet another layer: Semantic primitives are not only universal; they are also governed by a universal *syntax* of meaning. Starting afresh, Pulman observes that words may have internal structure, but ends up unsatisfied with his analysis, while Corbin and Temple find that words do not have denominations. Finally, in the tradition of Wierzbicka (also with regard to article length and brilliance), Goddard tries to discover a robust inventory of lexico-semantic universals.

Part **10** Polysemy brings together Apresjan (1971), Ci (1987), Deane (1988), Lehrer (1990), Geeraerts (1993) and Tuggy (1993). Apresjan shows that lexical polysemy is similar to word formation and synonymy, Ci suggests treating polysemy before synonymy (and handling both independently), Deane claims that polysemy is natural and even necessary for humans to be able to think flexibly, while Lehrer finds that there are very few exceptionless rules with regard to the supposed regularity and predictability of polysemy. Still within a cognitive perspective, Geeraerts shows that the distinction between vagueness and polysemy is unstable, while Tuggy contrasts ambiguity with vagueness, and places polysemy in the middle. If all of this looks tangled, it may be because it is.

Part **11 Cross-Linguistic Comparative Lexicology** brings together Brown C.H. (2001) and Goddard (2003). For some reason, when anthropologists seek to uncover universals, their findings always make more sense than comparable efforts by linguists. So it is with Brown's eye opener: 'a strong positive correlation exists between societal complexity and the occurrence of [...] polysemy'. He further adds overt marking to the equation. Goddard's effort is a variation, which does not add much new.

Volume IV, 'Syntagmatics', opens with one of the highlights of the collection, viz. Part 12 Syntagmatics: The Firthian Tradition, which brings together Halliday (1966), Sinclair (1966), Winter (1978), Sinclair (1998), Hoey (2004) and Partington (2004). The papers by Halliday and Sinclair from 1966 are visionary. Halliday predicts the size of the first COBUILD corpus (20 million words) and outlines the features of a corpus function (the Word Sketch) that would only become available four decades later. Sinclair goes one step further; he actually starts to build a corpus (manually, and an oral one at that!) so that he could study collocates. This article is vital reading for any (corpus) lexicographer, if only to see how Sinclair envisages what will eventually become the Thesaurus function of the Sketch Engine (cf. Part 20). Winter's work too, on content words that help organize discourse ('Vocabulary 3', not a sexy term, alas), is highly revealing. In 1998 Sinclair looked back (what have we achieved?) and forward (what's next?), and puts forward a new model reconciling the paradigmatic and syntagmatic dimensions. More recently, Hoey introduced the concept of priming, and Partington (re)examined the (Sinclairian) concepts semantic prosody and semantic preference.

Part **13 Lexicon Grammar** brings together Gross (1994), Leclère (1990) and Hudson (2002). For Gross and Leclère the 'linguistic unit of meaning is the elementary sentence', a theory which they exemplify through the construction of a lexicon grammar for French. A variant, Word Grammar, was developed by Hudson, and may be combined with Frame Semantics when exploring the semantics of words.

This, then, leads to Part **14 Frame Semantics**, which brings together Fillmore (1975), Fillmore and Atkins (1992), Lehrer (1992) and Fontenelle (2000). Fillmore is a brief introduction to what will eventually morph into Frame Semantics, including, in passing, a sharp critique of Labov's study (cf. Part 3). Fillmore and Atkins present a detailed semantic study of RISK, within Frame Semantics, and it is interesting to compare their outcome with the current entry for this lexeme in FrameNet (cf. http://framenet.icsi.berkeley.edu/). Two extensions follow: Lehrer investigates the relationship between semantic fields

and semantic frames, with proper names as her case study, while Fontenelle shows how a lexical-semantic database can be used to identify general frame elements relevant to Frame Semantics.

Part **15** Preferences, Meaning and Context brings together Gruber (1967), Wilks (1980), Wierzbicka (1982) and Nida (1997). Gruber is a case study; he shows that *look* and *see* are not only related semantically, but also syntactically (as they require different sets of prepositions). Wilks discusses the incorporation of richer semantic structures (pseudo-texts) into his Preference Semantics. If anything, Wierzbicka's contribution in this part certainly convinces that nothing is random in lexicology. Nida takes an extreme position: Words do not have meaning, only contexts (linguistic or cultural) have. This position results in an interesting, 'alternative', dictionary microstructure.

The first part of Volume V, 'Cognition and the Lexicon', is **16 Child Language Acquisition**, bringing together Brown R.W. (1958), Clark E.V. (1973), Clark E.V. (1997) and Goodman et al. (1998). Brown's classic article established that children acquire the shorter, most common,<sup>8</sup> and more concrete words first. Diary studies enabled Clark to suggest, in 1973, that 'children learn word meanings gradually by adding more and more features to their lexical entries', and in 1997, that 'children learn to take alternative perspectives along with the words they acquire'. Goodman et al.'s experiments further established that 'children as young as 24 months of age can use semantic context as a constraint for inferring the meaning of a novel noun'.

Part **17 Prototypes and Stereotypes** brings together Rosch (1975), Braisby (1990), Lakoff (1973) and Hanks (1994). Rosch's seminal paper on prototype theory looks into the structure of the cognitive representations generated by category words (i.e. *furniture, fruit, vehicle*, etc.), while Braisby surveys what the psychological literature has to say on word meaning, and introduces a Relational View of word meaning. Conversely, both Lakoff and Hanks address lexicographers directly: Lakoff focuses on hedges (i.e. *rather, nearly, typically*, etc.) 'whose meaning can only be given by the way they affect the meanings of other words', and Hanks claims that dictionary entries show only meaning potentials (i.e. linguistic and cognitive prototypes).

Part 18 The Mental Lexicon brings together Barsalou (1983), Schvaneveldt et al. (1976), Armstrong et al. (1983), Clark H.H. and Gerrig (1983), Ariel (2002) and Krzeszowski (1990). Barsalou indicates that ad-hoc categories (e.g. *things to sell at a garage sale, ways to make friends*, etc.) possess graded structures as salient as those of common categories (such as *furniture* or *fruit*). Several experiments lead Schvaneveldt et al. to conclude that the selective-access hypothesis best explains how ambiguous words are recognized, while another set of experiments lead Armstrong et al. to conclude that feature theories are inadequate for the description of mental categories. Clark and Gerrig challenge the assumption that to comprehend a word, people select the appropriate sense from a checklist of senses in the mental lexicon. Ariel suggests replacing the

concept literal meaning with three concepts of minimal meanings. Krzeszowski, finally, claims that all lexical items are quantifiable on an axiological scale, with the good/bad polarity being more fundamental than the true/false one.

The first part of the last volume, Volume VI on 'Formal Approaches to the Lexicon', is entirely devoted to **19 Meaning Text Theory** (MTT), bringing together two sections from Mel'čuk (1984), as well as Mel'čuk (1988) and Mel'čuk (2003). The principal claim of MTT is that 'a natural language is a specific system of correspondences between an infinite set of meanings and an infinite set of texts'. The *Explanatory and Combinatorial Dictionary* (ECD) is the face of the theory, and the 60 so-called Mel'čukian lexical functions, as well as the coinage of the term 'lexical unit', are probably the most useful concepts. All of this is illustrated with the introduction and excerpts from ECD, as well as two scientific articles.

Part 20 Measuring Word Associations brings together Lesk (1986), Lesk (1988), Church and Hanks (1989), Grefenstette (2002), Pantel and Lin (2002), Moore (2004), Kilgarriff (2004) and Kilgarriff et al. (2004). The two contributions by Lesk (one on automatic word sense disambiguation (WSD), the other on information retrieval (IR)) are mostly of historical value only. Church and Hanks, on the other hand, on the introduction of MI (i.e. the mutual information statistic) for measuring word association norms, remains highly influential. Next, Grefenstette shows how to mine multilingual Web corpora for appropriate translations, while Pantel and Lin present an algorithm for automatic sense discovery in corpora. Moore looks into more statistics, this time to pinpoint rare events: log-likelihood ratios and Fisher's exact test. Kilgarriff presents a mathematical model for the frequency distribution of word senses. Finally, Kilgarriff et al. present the Sketch Engine, a corpus tool that generates Word Sketches of collocational preferences, as well as a Thesaurus and Sketch Differences.

Part **21 Lexical Resources for Computational Language Processing** brings together Robison (1970), Miller and Fellbaum (1991), Dik (1987), Vossen and Bloksma (1998) and Vossen et al. (1999). Using an electronic dictionary of government words, Robison describes an early effort to teach a computer some semantics. Miller and Fellbaum discuss a number of principles underlying WordNet, and Vossen and Bloksma, as well as Vossen et al., do the same for EuroWordNet. Dik, finally, argues that knowledge resources are best built using the theory of Functional Grammar.

Part **22** Computational Representation of the Lexicon brings together Pustejovsky and Boguraev (1993), Copestake and Briscoe (1995), Morris and Hirst (2004) and Nirenburg (2007)—four very different theoretical opinions on how the lexicon should be represented computationally. Parts 20 to 22 show how far the NLP/AI community has come since Wittgenstein changed the whole direction of thinking about the lexicon in the 1950s, but it also hints at how much more work still needs to be done. Nirenburg, for example, suggests rather mischievously that NLP researchers use WordNet, not because it is any good or because it says what needs to be said, but only because it is there—it is the only thing available.

#### 4. General assessment

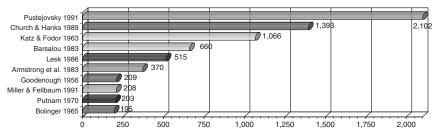
It is clear from the foregoing that Hanks did a superb job. The selection is awesome in both breadth and depth. It was an excellent idea to include book selections from the foundational thinkers about the lexicon—Aristotle, Wilkins, Leibniz, and others—because they enable us to read what these great thinkers actually said (in English translation, in the case of Aristotle and Leibniz). About translated material: Several were specially commissioned for this collection.<sup>9</sup> As such, not only the seminal papers by the great German semantic field theorists Porzig, Trier and Gipper, but also the equally important Romanian Coşeriu, are made available for the first time in English. It is truly astonishing that these papers have not previously been available in English. Hanks has also sought to uncover the interesting and valuable but unfamiliar, in addition to the popular and well-known. Winter, for example, is not widely known. It is to be hoped, then, that this collection will help to bring such papers to a wider and more appreciative audience.

Reviewers are expected to suggest improvements, so here goes. Firstly, in his General Introduction Hanks criticizes the generative tradition but does not mention Chomsky's Projection Principle, which (whatever its faults) at least deserves a mention. The idea that grammatical well-formedness is determined by lexical subcategorization is not as far removed from the concept of collocational preferences as Hanks seems to think, although of course adjustments would be needed on both sides if these theories were to be made compatible.

Secondly, one could argue that it is somewhat surprising to see the work of some of the 'giants' described and summarized by colleagues or students. Thus, de Saussure is absent from Part 5, and Firth from Part 12.

Thirdly, Sinclairian collocational analysis being the tradition in which Hanks's own work on lexicology is mostly done, it is not surprising that he makes a sympathetic selection here (Part 12). To the readers of IJL, this can hardly be seen as a minus, however. Perhaps more valid: Those working on child language acquisition may find that particular selection (Part 16) too thin. One section that is misjudged is Part 19: Far too much space (over 120 pages!) is devoted to MTT, too much of which is repetitious. The cohesion in Part 15 is also hard to see.

Fourthly, and moving on to individual contributions, one of the three (Euro)WordNet contributions could have been dropped in favour of one describing FrameNet. While every reader of LCC will of course end up with his or her own favourite chapters, the same is true for the 'boring' ones (Locke?, Quine?). Suggesting to drop certain chapters on that basis is dangerous, however. For example, it was arguably a waste of space to include the 1963



**Figure 3:** The 10 most-frequently cited contributions from *Lexicology: Critical Concepts* (according to Google statistics on 20 October 2008).

paper by Katz and Fodor, even though it is of historic interest. Hanks seems to have kept it only as an excuse for including Bolinger's 1965 riposte. That said, it *should* have been included based on the number of times Katz and Fodor is cited, as may be seen from Figure 3.

With 1,066 citations, Katz and Fodor is the third-most frequently cited contribution from LCC, only exceeded by Pustejovsky (1991) with 2,102 citations, and Church and Hanks (1989) with 1,393 citations. Further note the nice spread of the top 10 across the different volumes, which suggests that the coverage of the various branches of lexicology is reasonably balanced.

### 5. Publishers and the end of anthologies

One final point concerns the role of the Publisher. On the imprint pages one reads: 'References within each chapter are as they appear in the original complete work'. So, when they are missing altogether, that is just an error.<sup>10</sup> Extrapolating from this, one may assume that the goal of the Publisher is indeed to *reprint* the material in its original form, warts and all. This seems to be the case, as errors were indeed brought over.<sup>11</sup> However, the Publisher is not supposed to *introduce* errors—they number several hundred. They all appear to be the result of blind OCRing and/or sloppy re-editing. Take for example this representative sample of Frenglish: '[...] abus qui out ceci de commun d'avoir perdu de vue la function linguistique des faits étudiés, la structuration évidente des objets examinés avait, dans les deux domaines [...]' (II 93). Simply using the appropriate spellchecker (assuming that publishing houses have these!), could have spotted a very large number of errors.<sup>12</sup>

The number of typos in the 'new' texts (the General Introduction, the commentaries, all the translations) is even more severe, which suggests that no one at the Publisher took the time to read anything. The Index is also questionable, as it mostly reads like a reverse table of contents, with countless concepts not included, <sup>13</sup> and for those that are included, not all instances are listed.<sup>14</sup>

This leads to the following thought. If publishers publish blindly, why bother? Wouldn't it be much more productive to ask the editor to write his or her introduction, and to provide links only to the material that is already freely available online? Indeed, as many as 25 of the original 95 contributions to LCC — over one quarter — are currently freely available through Google Books (cf. Addendum). Another 19 may be freely downloaded elsewhere, and 15 more are available by subscription (which academics have through their affiliations). So, over 60% is already up for grabs, and this *without* any introduced errors. The future of anthologies, therefore, is online — but we'll still need people like Patrick Hanks to propose selections, write exciting introductions and provide the coveted list of pointers.

#### Notes

<sup>1</sup> Using Google, we retrieved the birth years of the various authors. These were not found for 40 out of 122 (or 36 out of 102 unique) authors, about one third thus.

<sup>2</sup> In some ways Wilkins went further, not merely compiling an ontology as Peter Mark Roget and George Miller (WordNet) subsequently did. Umberto Eco, in his book *The Search for the Perfect Language*, suggests: 'What if we treated Wilkins as if he were obscurely groping towards a notion for which we have only recently invented a name *hypertext*?' (Eco 1995: 258–259). Eco might have added that Wilkins was sensitive to semantic prototypes three centuries before prototype theory became fashionable. For example, Wilkins distinguishes dogs from wolves because dogs (prototypically) bark but wolves prototypically howl.

<sup>3</sup> Putnam also challenged the then prevalent notion that word meanings could be defined by necessary and sufficient conditions by arguing that if *tiger* is defined as 'a feline mammal with stripes' and we then encounter a mutant tiger with no stripes, we would say, 'Oh it's a stripe-less tiger', not, 'This animal cannot be a tiger, it has no stripes, so we must call it something else'.

<sup>4</sup> In this, an ontology purporting to be taken from an ancient Chinese encyclopedia (actually an invention of Borges's own imagination) is said to classify animals in categories such as 'those that resemble flies from a distance', 'those that have just broken a flower vase', 'those drawn with a very fine camel's hair brush', and 'those that are included in this classification'. This is not just comic relief, for Borges's point is a serious one: namely that ontologies may seem convincing within the belief system of a given culture at a given time period, but for outsiders, especially as we move away (in time and distance), those beliefs and the ontologies that represent them come to seem increasingly strange.

<sup>5</sup> Trier's examples are from medieval German, but for English examples, consider the set *knowledge*, *science*, *philosophy* and even *natural history* — or the set *ideas* and *concepts*.

<sup>6</sup> At one stage, in the 1960s, there was a fashion among writers on semantics such as Geoffrey Leech to apply componential analysis to word meaning very widely indeed. All sorts of content words were analyzed componentially, with a considerable influence on dictionary writing in those days.

<sup>7</sup> Semantic primitives are a few dozen semantic irreducible concepts in terms of which Wierzbicka, Goddard, and their colleagues (including Mel'čuk) suppose that the meaning of all words in all languages can be expressed. Even though Hanks, in his General Introduction, expresses scepticism about semantic primitives, he includes enough serious work on what they are and how they are applied by those who believe in them for the reader to make his or her own judgement about their importance and the contribution made by this tradition to lexicology.

<sup>8</sup> Which is related, cf. Zipf.

<sup>9</sup> The logic is not entirely clear, however. Three contributions in German and one in French were translated into English, so one wonders: Why not the other (five) French ones, so that *everything* would have been in English, and thus as widely accessible as possible?

<sup>10</sup> This is for example the case for Quine (1960), Putnam (1975), Wierzbicka (1987) or Williamson (2001).

<sup>11</sup> Examples include: This is has been > This has been (I 194), 1996b > 1966 (IV 51, IV 72), truth conditional > conditional (V 384), Lawrence Urdang > Laurence (VI 134), collections > collocations (VI 216), This was the how we > This was how we (VI 234) etc.

<sup>12</sup> As in this tiny sample: richer than anly other > any (I 182), Reprott > Report (I 203), existentwhich > existent—which (I 213), the contributors co this > to (I 343), condem-nations > condemnations (I 427) [unless someone wanted to introduce a pun], déjā > déjà [French] (II 94), Transcmtural > Transcultural (II 228), codom > condom (III 251), Rockiesf > Rockies (III 264), *oudbak-ken* > *oudbakken* [Dutch] (III 289), frnctions > functions (III 356), Ssemantic > semantic [over-correction!] (III 368), the eleventh Has > has (IV 64), philosophy. psychology >, (V 133), Rescarch > Research (V 241), counteracing > counteracting (V 433), pos-sible > possible (V 453), annecdotal > anecdotal (VI 216), does > doos [Dutch] (VI 325), etc. etc.

<sup>13</sup> E.g. Bantu IV 399, or WordNet VI 266.

<sup>14</sup> E.g. at Renouf, A.: + IV 178, or at type coercion: + VI 371.

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Author(s)	Born	Year	Title	Source	V.	Р.	Ch.	Pp.	Online	Cited
Apresjan JD	1930	1971	Regular Polysemy	J - Linguistics; Tr (1973)	III	10	40	24	_	150
Apresjan JD	1930	1994	On the Language of Explications and Semantic Primitives	Book - Extract; Tr (Windle K, OUP 2000)	III	9	35	19	G	N.A.
Ariel M	?	2002	The Demise of a Unique Literal Meaning	J - Jnl of Pragmatics	V	18	77	47	-	-
Aristotle	384 BC	322 BC	Meaning and Essence: Excerpts from Aristotle's writings	Books - Extracts; Sel, arr, ed (Stathi K); Tr (MIT)	Ι	1	1	29	G	N.A.
Armstrong SL, Gleitman LR & Gleitman H	?, 1929, ?	1983	What Some Concepts Might Not Be	J - Cognition	V	18	75	43	\$	370
Austin JL	1911	1963	Performative-Constative	Ed coll; Tr (Warnock GJ)	Ι	2	13	26	G	_
Barsalou LW	1951	1983	Ad Hoc Categories	J - Memory and Cognition	V	18	73	36	(I)	660
Bierwisch M	1930	1967	Some Semantic Universals of German Adjectivals	J - Foundations of Language	II	7	31	36	_	-
Bogusławski A	1931	1970	On Semantic Primitives and Meaningfulness	Ed coll	III	9	34	11	-	-
Bolinger D	1907	1965	The Atomization of Meaning	J - Language	Π	7	30	22	\$	195
Borges JL	1899	1937	The Analytical Language of John Wilkins	Book - Extract/Essay; Tr (Simms RLC)	Ι	3	14	4	G	58
Braisby N	?	1990	Situating Word Meaning	Ed coll	V	17	70	27	-	-
Brown CH	1944	2001	Lexical Typology from an Anthropological Point of View	Ed coll	III	11	46	19	G	—
Brown RW	1925	1958	How Shall a Thing be Called?	J - Psychological Review	V	16	65	9	G	_
Church KW & Hanks P	?, 1940	1989	Word Association Norms, Mutual Information, and Lexicography	Proc - ACL	VI	20	85	18	Ι	1393
Ci J	?	1987	Synonymy and Polysemy	J - Lingua	III	10	41	17	_	_

Addendum: Fact sheet of the 100 texts in Lexicology: Critical Concepts

Clark EV	?	1973	What's in a Word? On the child's acquisition of semantics in his first language	Ed coll	V	16	66	48	_	_
Clark EV	?	1997	Conceptual Perspective and Lexical Choice in Acquisition	J - Cognition	V	16	67	42	\$	86
Clark HH & Gerrig RJ	? & ?	1983	Understanding Old Words with New Meanings	J - Verbal Learning and Verbal Behavior	V	18	76	24	G	55
Copestake A & Briscoe T	?, 1959	1995	Semi-productive Polysemy and Sense Extension	J - Semantics	VI	22	97	53	Ι	172
Corbin D & Temple M	? & ?	1994	Le monde des mots et des sens construits: Catégories sémantiques, catégories référentielles	J - Cahiers de lexicologie	III	9	38	24	_	18
Coşeriu E	1921	1964	Towards a Diachronic Structural Semantics	J - Travaux de linguistique et de littérature; Tr (Hanks P)	II	5	25	54	N.A.	-
Couturat L	1868	1903	Excerpts from The Logic of Leibniz	Book - Extracts; Tr (Rutherford D & Monroe RT)	Ι	1	6	33	Ι	N.A.
Deane PD	?	1988	Polysemy and Cognition	J - Lingua	III	10	42	35	_	45
Dik SC	1940	1987	Linguistically Motivated Knowledge Representation	Ed coll	VI	21	93	25	-	-
Fillmore CJ	1929	1975	An Alternative to Checklist Theories of Meaning	Proc - Berkeley Linguistics Society	IV	14	57	8	(G)	-
Fillmore CJ & Atkins BTS	1929, 1931	1992	Towards a Frame-based Lexicon: The semantics of RISK and its neighbors	Ed coll	IV	14	58	27	-	-
Fontenelle T	1964	2000	A Bilingual Lexical Database for Frame Semantics	J - IJL	IV	14	60	19	\$	13
Geeraerts D	1955	1993	Vagueness's Puzzles, Polysemy's Vagaries	J - Cognitive Linguistics	III	10	44	46	_	_
Gipper H	1919	1959	Sessel or Stuhl? A contribution to the definition of word-contents in the object world	Ed coll (Fest); Tr (Gehweiler E)	II	4	21	20	N.A.	_

continued

# Addendum: continued

Author(s)	Born	Year	Title	Source	V.	P.	Ch.	Pp.	Online	Cited
Goddard C	?	2003	Thinking Across Languages and Cultures: Six dimensions of variation	J - Cognitive Linguistics	III	11	47	30	\$	14
Goddard C	?	2005	Lexico-Semantic Universals: A critical overview	J - Linguistic Typology	III	9	39	65	_	30
Goodenough WH	1919	1956	Componential Analysis and the Study of Meaning	J - Language	II	6	27	26	Ι	209
Goodman JC, McDonough L & Brown NB	1958, ? & ?	1998	The Role of Semantic Context and Memory in the Acquisition of Novel Nouns	J - Child Development	V	16	68	26	_	28
Grefenstette G	1956	2002	Multilingual Corpus-based Extraction and the Very Large Lexicon	J - Languages and Computers	VI	20	86	13	\$(Free)	2
Gross M	1934	1994	Constructing Lexicon-Grammars	Ed coll	IV	13	54	50	G	_
Gruber JS	?	1967	Look and See	J - Language	IV	15	61	14	-	_
Halliday MAK	1925	1966	Lexis as a Linguistic Level	Ed coll (Fest)	IV	12	48	13	G	135
Hanks P	1940	1994	Linguistic Norms and Pragmatic Exploitations, or Why Lexicographers need Prototype Theory, and Vice Versa	Proc - Complex	V	17	72	23	_	_
Hanks P	1940	2007	Lexicology: General Introduction	N.A.	Ι	0	0	35	N.A.	N.A.
Hjelmslev L	1899	1958	Dans quelle mesure les significations des mots peuvent-elle être considérées comme formant une structure?	Proc - Intl Congress of Linguistics	II	5	23	15	_	_
Hoey M	?	2004	The Textual Priming of Lexis	Ed coll	IV	12	52	19	G	_
Hudson R	1939	2002	Buying and Selling in Word Grammar	(Unpublished*)	IV	13	56	28	Ι	25
Jackendoff R	1945	2002	What's in the Lexicon?	Ed coll	II	8	33	33	(G)	_
Katz JJ & Fodor JA	A 1932, 1935	1963	The Structure of a Semantic Theory	J - Language	II	7	29	44	\$	1066
Kilgarriff A	1960	2004	How Dominant is the Commonest Sense of a Word?	Proc - TSD	VI	20	89	11	Ι	8

Kilgarriff A, Rychlý P,	1960, 1973, ? & ?	2004	The Sketch Engine	Proc - Euralex	VI	20	90	13	Ι	67
Smrž P & Tugwell D										
Krzeszowski TP	1939	1990	The Axiological Aspect of Idealized Cognitive Models	Ed coll	V	18	78	27	-	15
Labov W	1927	1973	The Boundaries of Words and their Meanings	Ed coll	Ι	3	15	31	G	_
Lakoff G	1941	1973	Hedges and Meaning Criteria	Ed coll	V	17	71	12	-	-
Leclère C	?	1990	Organization of the Lexicon-Grammar of French Verbs	J - Lingvisticae Investigationes; Tr (Stone M 2002)	IV	13	55	19	_	6
Lehrer A	?	1990	Polysemy, Conventionality, and the Structure of the Lexicon	J - Cognitive Linguistics	III	10	43	39	-	-
Lehrer A	?	1992	Names and Naming: Why we need fields and frames	Ed coll	IV	14	59	21	-	-
Leibniz GW	1646	1704	Excerpts from Table of Definitions	Book - Extract; Sel, Tr (Rutherford E)	Ι	1	5	11	Ι	N.A.
Lesk M	?	1986	Automatic Sense Disambiguation Using Machine Readable Dictionaries: How to tell a pine cone from an ice cream cone	Proc - ACM Sigdoc	VI	20	83	8	Ι	515
Lesk M	?	1988	'They Said True Things, But Called Them by Wrong Names': Vocabulary problems over time in retrieval	Proc - Waterloo OED	VI	20	84	15	_	_
Locke J	1632	1690	Of the Signification of Words	Book - Extracts	Ι	1	4	27	G	N.A.
Lounsbury FG	1914	1964	The Structural Analysis of Kinship Semantics	Proc - Intl Congress of Linguistics	Π	6	28	22	_	—
Lyons J	1932	1968	Semantic Structure	Book - Extract	Π	5	26	37	G	N.A.
Mel'čuk I	1932	1984	Dictionnaire explicatif et combinatoire du français contemporain (DEC): Introduction	Dictionary	VI	19	79	25	-	N.A.

continued

## Addendum: continued

Author(s)	Born	Year	Title	Source	V.	P.	Ch.	Pp.	Online	Cited
Mel'čuk I	1932	1984	Selected Articles from Le Dictionnaire explicatif et combinatoire	Dictionary	VI	19	80	25	-	N.A.
Mel'čuk I	1932	1988	Semantic Description of Lexical Units in an Explanatory Combinatorial Dictionary: Basic principles and heuristic criteria	J - IJL; Tr (Frawley W)	VI	19	81	25	\$	40
Mel'čuk I	1932	2003	Collocations dans le dictionnaire	Ed coll	VI	19	82	47	_	_
Miller GA & Fellbaum C	1920, ?	1991	Semantic Networks of English	J - Cognition	VI	21	92	33	-	208
Moore RC	1948	2004	On Log-Likelihood Ratios and the Significance of Rare Events	Proc - EMNLP	VI	20	88	14	(I)	17
Morris J & Hirst G	? & ?	2004	Non-Classical Lexical Semantic Relations	Proc - CLS NAACL-HLT	VI	22	98	11	Ι	28
Nida EA	1914	1997	The Molecular Level of Lexical Semantics	J - IJL	IV	15	64	11	\$	1
Nirenburg S	?	2007	Homer, the Author of <i>The Iliad</i> and the Computational-Linguistic Turn	Ed coll (Fest)	VI	22	99	36	\$	_
Pantel P & Lin D	? & ?	2002	Discovering Word Senses from Text	Proc - ACM Sigkdd	VI	20	87	24	Ι	175
Partington A	?	2004	"Utterly Content in Each Other's Company": Semantic prosody and semantic preference	J - IJCL	IV	12	53	24	\$	28
Porphyry	c. 233	270	Eisagoge: Introduction to Aristotle's Categories	Book - Extract; Tr (Barnes J)	Ι	1	2	15	G	N.A.
Porzig W	1895	1934	Intrinsic Meaning Relations	J - Sprache und Literatur; Tr (Gehweiler E)	Π	4	19	19	N.A.	-
Pottier B	1924	1964	Vers une sémantique moderne	J - Travaux de linguistique et de littérature	II	5	24	32	-	_
Pulman SG	?	2005	Lexical Decomposition: For and against	Ed coll	III	9	37	20	G	2
Pustejovsky J	1956	1991	The Generative Lexicon	J - Computational Linguistics	II	8	32	40	(I)	2102
Pustejovsky J & Boguraev B	1956, 1950	1993	Lexical Knowledge Representation and Natural Language Processing	J - Artificial Intelligence	VI	22	96	31	(I)	86
Putnam H	1926	1970	Is Semantics Possible?	Ed coll	Ι	2	11	13	G	203
Putnam H	1926	1975	The Meaning of 'Meaning'	Ed coll	Ι	2	12	53	G	_

Ouine WVO	1908	1940	Use Versus Mention	Book - Extract	T	2	9	4	G	N.A.
Quine WVO	1908	1960	Excerpts from <i>Word and Object</i>	Book - Extracts	I	2	10	33		N.A.
Robison HR	?	1970	Computer-Detectable Semantic Structures	J - Information Storage and Retrieval	VI	21		20		_
Rosch E	1938	1975	Cognitive Representation of Semantic Categories	J - Experimental Psychology	V	17	69	63	\$	-
Russell B	1872	1922	Words and Meaning	Book - Extract	Ι	1	7	15	G	N.A.
Schvaneveldt RW, Meyer DE & Becker CA	?, 1943, ?	1976	Lexical Ambiguity, Semantic Context, and Visual Word Recognition	J - Experimental Psychology	V	18	74	22	\$	59
Sinclair J	1933	1966	Beginning the Study of Lexis	Ed coll (Fest)	IV	12	49	19	_	109
Sinclair J	1933	1998	The Lexical Item	Ed coll	IV	12	51	22	_	_
Trier J	1894	1934	The Linguistic Field: An investigation	J - Wissen. und Jugend.; Tr (Gehweiler E & Hanks P)	II	4	20	23	N.A.	-
Tuggy D	1950	1993	Ambiguity, Polysemy, and Vagueness	J - Cognitive Linguistics	III	10	45	18	G	_
Vossen P & Bloksma L	1960, ?	1998	Categories and Classifications in EuroWordNet	Proc - ELRA	VI	21	94	17	Ι	9
Vossen P, Peters W & Gonzalo J	1960, 1960, ?	1999	Towards a Universal Index of Meaning	Proc - ACL Siglex	VI	21	95	18	Ι	28
Wierzbicka A	1938	1982	Why Can You <i>Have a Drink</i> when You Can't <i>*Have an Eat</i> ?	J - Language	IV	15	63	56	\$	53
Wierzbicka A	1938	1986	Precision in Vagueness: The semantics of English 'approximatives'	J - Jnl of Pragmatics	Ι	3	16	17	-	-
Wierzbicka A	1938	1987	English Speech Act Verbs: Introduction and entry for 'promise'	Dictionary	Ι	3	17	37	-	N.A.
Wierzbicka A	1938	1995	Universal Semantic Primitives as a Basis for Lexical Semantics	J - Folia Linguistica	III	9	36	22	_	5
Wildgen W	1944	2000	The History and Future of Field Semantics: From Giordano Bruno to dynamic semantics	Ed coll	II	4	22	25	G	3

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Addendum: co	ntinued									
Author(s)	Born	Year	Title	Source	V.	P.	Ch.	Pp.	Online	Cited
Wilkins J	1614	1668	Excerpts from <i>Essay Towards a Real Character,</i> and a Philosophical Language	Book - Extracts; Sel, ed (Hanks P & Urbschat A)	Ι	1	3	56	_	N.A.
Wilks Y	1939	1980	Frames, Semantics and Novelty	Ed coll	IV	15	62	29	\$	_
Williamson T	1955	2001	Vagueness, Indeterminacy and Social Meaning	Ed coll	Ι	3	18	16	\$(Free)	1
Winter EO	1924	1978	A Look at the Role of Certain Words in Information Structure	Proc - Informatics	IV	12	50	16	-	-
Wittgenstein L	1889	1953	Excerpts from Philosophical Investigations	Book - Extracts; Sel, ed, comm (Wilks Y)	Ι	2	8	15	G	N.A.

Abbreviations: Arr = arranged, Comm = with commentary, Ed = edited, Sel = selected, Tr = translated; V = Volume, P = Part, Ch = Chapter, Pp = pages; \$ = by subscription, G = Google Books, (G) = id. but different version, I = Internet, (I) = id. but different version.

*Note*: Six dates were adapted/corrected here compared to those given in *Lexicology: Critical Concepts*, to better reflect the *original* year of publication. These are Apresjan 1973  $\rightarrow$  1971, Apresjan 2000  $\rightarrow$  1994, Church & Hanks 1990  $\rightarrow$  1989, Hudson *in press*  $\rightarrow$  2002, Leclère 2002  $\rightarrow$  1990, Lyons 1969  $\rightarrow$  1968.

\*Cf. http://www.phon.ucl.ac.uk/home/dick/buying.htm

doi:10.1093/ijl/ecn040