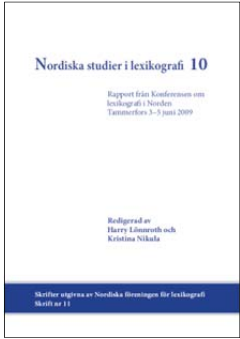


NORDISKE STUDIER I LEKSIKOGRAFI

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Forfatter:	Reinhard Hartmann	
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REINHARD HARTMANN

Has Lexicography Arrived as an Academic Discipline? Reviewing Progress in Dictionary Research during the Last Three Decades

The current position of lexicography is discussed by attempting tentative answers to six sets of questions: 1) What are some of the most important events since 1977, and how have they contributed to raising the status of lexicography? 2) Who are the leaders of dictionary research, especially as founders of dictionary research centres? 3) What are the chief component parts or perspectives for the definition of dictionary research? 4) What are the criteria for disciplinary status (and most appropriate methods of research)? 5) What are the remaining deficiencies in dictionary research? and 6) What are the implications of all of this for the future? The main points are supported by tables exemplifying developments that I have found to be of particular interest.

Keywords: lexicography, theory and practice, dictionary research

1. Introduction

Having written a number of reports, books and papers during the last few years on the development of lexicography, with particular attention to dictionary research or metalexicography (Hartmann 1999, 2001, 2003, 2007, 2008, 2009, *forthc. a*, *forthc. b*, *forthc. c*, *forthc. d*), I am still intrigued by the question whether lexicography has managed to achieve academic respectability. I am going to pursue this topic here, based on my own experience, in connection with six questions:

- (1) What are some of the most important events during the last 30 years, and how have they contributed to raising the status of lexicography?
- (2) Who are the leaders of dictionary research, especially as founders of dictionary research centres?
- (3) What are the component parts or perspectives for the definition of dictionary research?
- (4) What are the criteria for disciplinary status (and most appropriate methods of research)?
- (5) What are the remaining deficiencies in dictionary research?
- (6) What are the implications of all of this for the future?

I cannot cover every aspect of these, but although my examples and case studies are limited and based on my own personal selection, I hope they will be representative of at least some of the major recent trends.

2. Historic events

The first question that I have to address is: What are some of the most important conferences and similar events during the last three decades?

My own favourite example (and of some considerable significance for me) was LEXeter '83, which I hosted just over a quarter of a century ago, and whose proceedings (Hartmann 1984) were published as the first volume of the *Lexicographica Series Maior*. Special meetings were also held then of three important committees: one was preparing for the establishment of EURALEX and an Executive Board for it, the second was a committee of the European Science Foundation discussing "Computers in Lexicography", and the third involved a small informal group talking about the possibility of creating an encyclopedia of lexicography (which became the 3-volume handbook *W/D/D*).

Five years after LEXeter, when the EURALEX congress was held for the third time, I attempted a review of lexicography conferences in which I examined over 1,300 papers presented at over 65 meetings held between 1960 and 1988. My rather modest conclusion then was (Hartmann 1990b: 573) that "conferences are no guarantee for reducing the barriers to communication: sometimes they can create new barriers," as it is sometimes quite difficult to see how the personal messages of individual papers fit into the respective overall programme, or how the overall contents of the proceedings move forward to those of the next meeting – I have since extended my list of conferences, and by now it contains well over 700 events held during the 60 years between 1950 and 2010 (forming Section 11 in my project of an *International Directory of Lexicography Institutions*).

In Table 1, I select six conferences of relevance for the 20-year period from 1977 to 1997.

The reason why I have chosen these six events is that they initiated important international series of meetings run by professional associations, specifically the Dictionary Society of North America since 1977, EURALEX in Europe since 1983, the NFL in Northern Europe since 1991, the French colloquia *Journées* since 1993, AFRILEX in South Africa since 1996, and ASIALEX in Asia since 1997 (its first official biennial regional conference took place two years later,

Table 1. *Historic events*

	Place	Year	Association	Series
1	Terre Haute IN	1977	DSNA 1 (f. 1975)	17 biennial meetings to 2009
2	Exeter	1983	EURALEX 1	13 biennial congresses to 2008
3	Oslo	1991	NFL 1	10 biennial conferences to 2009
4	Paris/Cergy	1993	<i>Journée</i> 1	17 annual <i>journées</i> to 2009
5	Johannesburg	1996	AFRILEX (f. 1995)	14 annual conferences to 2009
6	Hong Kong	1997	ASIALEX	6 biennial conferences to 2009

1999 in Guangzhou). The 13 congresses of EURALEX alone have had an overall attendance of more than 1,000 participants over the last 25 years.

And there are, of course, many other conferences that I could have mentioned (some of which are listed in the chronology of the Appendix), such as the biennial International Symposia on Lexicography at Copenhagen, of which 13 were held between 1982 and 2007. I have attended three of the six conferences listed in Table 1, but unfortunately not the one listed in line 3, although 1991 was an important year in many ways: not only was it the date of the first Biennial Conference of the Nordisk Forening for Leksikografi at Oslo, but I have evidence of at least 13 meetings that took place then, notably the first of two conferences at Jyväskylä, the 7th in a series promoted by the (*New*) *Oxford English Dictionary* at Toronto and Oxford – overlapping with a EURALEX Seminar on Dictionary Use –, the 8th Biennial Meeting of the DSNA, and the first in a series of *Seminarios* at Jaén, which led to a number of interesting developments in Spain.

The point I want to make here is simply that conferences can matter quite a lot for promoting progress in a particular subject field. It is where people meet and listen to the presentation of papers, where they can report the results of research projects, where they have a chance to get to know other people, and start new projects, new networks and new affiliations, as no doubt you will have experienced at all the meetings of NFL.

3. Leaders in dictionary research

My second point concerns the kinds of people who organise conferences (and enjoy the pleasure of being invited to give plenary lectures at them) and help to promote various research networks, centres and projects.

We all have personal favourites, such as our own teachers, colleagues and friends, but more widely out there, there are a number of pioneers and leaders whom we all know and admire in our field. In Table 2, I list five of these:

- the Czech-American philologist Ladislav Zgusta (†),
- the Scottish-British corpus linguist John Sinclair (†),
- the Cantonese-Chinese bilingual lexicographer Jianhua Huang,
- the German communications scholar Herbert Ernst Wiegand, and
- the French all-rounder Jean Pruvost.

In the middle column, I give details on their academic bases, and in the final column, I mention some of their achievements.

Table 2. Leaders in dictionary research

Leaders	DRCs	Achievements
1 Ladislav ZGUSTA (†)	U. Illinois Urbana-Champaign, USA	Conferences, DSNA President, books, co-ed. of <i>W/D/D</i> and <i>Lexicographica Series Maior</i> , PhDs
2 John SINCLAIR (†)	U. Birmingham, GB	Corpus linguistics, Dictionary Research Centre, books, <i>COBUILD</i> , PhDs
3 Jianhua HUANG	Guangdong U.F.S., Guangzhou, CN	ASIALEX 1 (& President), Centre for Lexicographic Studies, books, <i>NCFCD</i> , PhDs
4 Herbert Ernst WIEGAND	U. Heidelberg, DE	Conferences, books, co-ed. of journal <i>Lexicographica</i> , co-ed. of <i>W/D/D</i> , <i>Lexicographica Series Maior</i> and dictionary series <i>WSK</i> , PhDs
5 Jean PRUVOST	U. Cergy-Pontoise, FR	<i>Journées</i> , Métadif & LDI Centres, books, ed. of book series <i>Lexica</i> and <i>Études de lexicologie, lexico-graphie et dictionnaire</i> , PhDs
6 ?	?	?

The contributions to (meta)lexicography by leading figures like Zgusta, Sinclair, Huang, Wiegand and Pruvost are massive, not only in terms of the issues I am going to discuss here, such as hosting conferences and sponsoring associations, but also in terms of establishing dictionary research centres, publishing textbooks, starting book series and journals, contributing to dictionary projects, supervising M.A. and Ph.D. dissertations, etc.

I hope you agree with my basic choices, although we all know that there are many others who deserve the title “pioneer” (the ones who stand out for me include Arthur Delbridge in Australia, Tony Cowie in England, Richard Bailey and Edward Gates in the United States, Henri Béjoint in France, Franz Josef Hausmann in Germany, Carla Marello in Italy, Janet de Cesaris in Spain, Tamás Magay in Hungary, Arleta Adamska-Sałaciak in Poland, Rufus Gouws in South Africa, and Yukio Tono in Japan). Some of them have been honoured by *fest-schrift* volumes, e.g. Zgusta in Kachru & Kahane (1995), some are listed in *Who’s who* volumes, some of their publications are mentioned in the bibliographical references, and some of the Nordic ones I will come to in a moment.

We ought to be aware of the difficulties that people like that may have in their own institutions, in the context of developing ambitious new specialisations, of persuading their colleagues and the administrative authorities of the value of the research they are engaged in, and of the value that all this can bring to the next generation. We also need to acknowledge that it is often necessary for them to use some particular social skills to make their points convincingly, such as humour (for instance Zgusta), or irony (for instance Sinclair), or diplomacy (for instance Huang), or charm (for instance Pruvost), or sometimes even a certain amount of forcefulness (for instance Wiegand).

It occurs to me that I could set you an exercise at this point: whom would you nominate as your own leader for No. 6 in Table 2 (several names occur to me, such as Hans-Peder Kromann [†], Arne Zettersten, Dag Gundersen)? In the *Wikipedia* “List of Lexicographers” – which I have recently helped to consolidate – there are at least 18 names from the Nordic countries, although most of these are no longer among the living, such as Elias Lönnrot from Finland, Ericus Schroderus from Sweden, Jens Andreas Friis from Norway, and Rasmus Christian Rask from Denmark. So much more needs to be done to add entries on contemporary celebrities.

4. Perspectives of dictionary research

In order to find out how we can establish the field which these conferences and associations and their builders and bosses have been trying to promote, we now

need to examine the component parts or branches or perspectives of dictionary research. The literature on this is scattered over a number of limited sources, and only rarely are they brought together as a set of contrasting specialisations (as in statements by scholars like Herbert Ernst Wiegand or Henning Bergenholtz).

In Table 3, I list six so-called perspectives of dictionary research, and I find this convenient not only as a framework for documenting progress over the last few years, but also for illustrating some personal experiences and insights. The table shows the main components of dictionary research, together with brief definitions and representative references to the literature, either because they are pioneering or because they provide a good summary of some of the problems involved.

The first perspective, “dictionary criticism”, involves a concern for evaluating quality, seeking answers to questions like: What is the value and function of a particular dictionary, and how well does it do to fulfil these, questions which go back quite a long way, at least to Paolo Beni’s (1612) attack on the Italian Academy Dictionary *Vocabolario degli Accademia della Crusca* (VAC), which might be considered to be one of the forerunners of metalexigraphy or dictionary research.

Table 3. Perspectives of dictionary research

Perspectives	Definitions	Literature
1 Dictionary criticism	Evaluating quality	Beni (1612), Heuberger (2000)
2 Dictionary history	Tracing traditions	Murray (1900), Hartmann (1986)
3 Dictionary typology	Classifying genres	Ščerba (1940), Hartmann (2005)
4 Dictionary structure	Formatting information	Dubois (1962), Hausmann & Wiegand (1989)
5 Dictionary use	Observing reference acts	Hartmann (1979), Lew (2004)
6 Dictionary IT	Applying computer aids	Busa (1971), Ooi (1998)

Much more recently, dictionary criticism has become an important branch, gradually widening the scope from historical dictionaries to general-purpose and more and more special-purpose dictionaries. For example, Reinhard Heuberger (2000) reviewed the famous learners’ dictionary *COBUILD* together with three other British EFL dictionaries in terms of their various information cat-

egories and how they are presented, in print and in electronic form, for the benefit of foreign learners of English.

The second perspective of dictionary research is “dictionary history”, asking questions like: Where do dictionaries come from, what were the traditions within which they were compiled, and how have they changed over the years? Again, the literature on these topics goes back quite some time; in the second line of the table I give the example of James Murray’s (1900) famous lecture on the early history of English lexicography, right up to and including the *Oxford English Dictionary* (OED). The important statement by Murray was one of the considerations that motivated me to organise another Exeter Conference, on “The History of Lexicography” (Hartmann 1986), not just of the development of so-called “historical” dictionaries, but also of several other types of dictionaries.

The distinction between “history of dictionaries” and “historical dictionaries” is recognised in two volumes of *LexicoNordica*, No. 7 and No. 13, and in two conference series, the first held between 1971 and 1977 (with two “round-table” meetings at Firenze and Leiden) and the second in 2-year intervals between 2002 and 2010, with five more conferences at Leicester in Central England (cf. Coleman & McDermott 2004), at Gargnano del Garda in Northern Italy, at Leiden in the Netherlands, at Edmonton, Alberta in Canada last year, and at Oxford next year.

The third perspective of dictionary research is “dictionary typology”, which deals with the problem of how to classify the wide range of dictionary genres that exist out there in the world. One of the pioneers in this area was the Russian linguist Lev Vladimirovič Ščerba, whose essay (in 1940) attempted to categorise dictionaries in terms of six rather abstract oppositions, such as normative versus informative, encyclopedic versus general, and alphabetic versus thematic.

I myself have made a few minor contributions to this subject, firstly by a paper (Hartmann 1992) in which I contrasted the modern monolingual English learners’ dictionary with the traditional bilingual dictionary, secondly by an essay (Hartmann 2005) on mixed or hybrid genres of reference works or “reference resources” such as the annual *Halliwel’s Film, Video & DVD Guide* (which I use regularly at home), and thirdly by a survey of onomasiological dictionaries in 20th-century Europe (Hartmann 2006) which formed part of a thematic issue of the journal *Lexicographica* on thesaurus lexicography.

The fourth perspective is “dictionary structure”. One important pioneer was the French lexicographer Jean Dubois who argued, back in 1962, that the dictionary could and should be approached as text or communicative discourse and, therefore, could be analysed and processed with the means of linguistic science. There have been other attempts since then to isolate the various ways

in which information is presented in dictionaries, such as “microstructure” (or entry design) and “macrostructure” (or overall lemma-list), to describe their structural formats and complexity. In Article 36 of the encyclopedia *W/D/D*, Hausmann & Wiegand (1989) introduced several more distinctions which have been absorbed into the literature, so that today we have a whole hierarchy of notions beyond microstructure and macrostructure, such as “frame structure” (or outside matter), “mediostructure” (or cross-reference systems), “distribution structure” (or relative stress on linguistic or encyclopedic information) and “access structure” (or indexing). As has been demonstrated by authors such as Bergenholtz & Tarp (1995) in relation to LSP lexicography, a better understanding of structural features can also benefit the other perspectives of dictionary research.

The fifth perspective of dictionary research is “dictionary use” (also referred to as the “user perspective”), and I take some pride in the important part played by the Exeter BAAL Seminar held just over 30 years ago (Hartmann 1979) which stressed the need to find out what structural and other problems dictionary users experience, which in turn has led to the development of quite a lot of original (empirical) research at M.A. and Ph.D. level, as demonstrated by the overview of studies of the receptive use of monolingual, bilingual and bilingualised dictionaries by Polish learners of English as given in Robert Lew’s (2004) book entitled *Which Dictionary for Whom?*

Finally (in line 6), there is what I call “dictionary IT” (and what has been given several other alternative names for this exciting field of applying electronic aids to lexicography). One early pioneer was Roberto Busa, an Italian Jesuit working on Classical texts (such as those of Thomas Aquinas), who, in his contribution to the *Encyclopedia of Library and Information Science* (Busa 1971) on the subject of “concordance-making”, acknowledged the potential benefit of computers for such text-processing techniques. More recently, Vincent Ooi’s textbook *Computer Corpus Lexicography* (1998) has summarised the advantages of the corpus approach, and it is no accident that there have been quite a few conferences on corpus linguistics and other types of dictionary IT, such as the one planned at Louvain in Belgium this October.

Over the last three decades, these six perspectives have not only helped to set up so-called dictionary research centres, but contributed to considerable reflection on what is happening, for instance in terms of the tension between lexicographic practice and metalexicographic theory, or of the gradual emergence of lexicography as an academic discipline, so this is the topic that I must turn to next.

5. Criteria for disciplinary status

So, what are the chief criteria for defining a discipline? There is hardly any well-known literature on what constitutes a discipline. One interesting book I found is called *Academic Tribes and Territories. Intellectual Enquiry and the Cultures of Disciplines*. Its author Tony Becher (1989) suggests that for an understanding of what constitutes an academic subject field we need to look not only at epistemological factors such as “knowledge”, but also at social factors that contribute to the formation of expert professional “communities”. This can be illustrated by reference to linguistics, which having been “[...] perhaps an overpriced stock a decade or two ago, seems to have fallen back to reflect a more modest market valuation” (Becher 1989: 143). And for a discussion of the wider and longer-term issues in the history of science, the book *La nascita della scienza moderna in Europa* by Paolo Rossi and its English translation *The Birth of Modern Science* (2001) is fascinating and relevant, but although Rossi (2001: 7) stresses “that critical dialogue between theories, scientific traditions, and images of science has always been [...] continuous and unceasing”, he does not actually explain how the early university and academy communities working on so-called natural philosophy have turned into disciplinary fraternities and (more recently) sororities.

My own thinking about the status of these fields in contemporary higher education is to a large extent influenced by a couple of German academics, Herbert Ernst Wiegand (1989) for the field of lexicography and Peter Rolf Lutzeier (2002) for lexicology. In Table 4, I arrange the main criteria for disciplinary status, and this will help us to go through the process step by step. What we need is a full range of criteria, for each of these six aspects, and we have to ask ourselves whether and how such tests can be met, level by level, with special reference to Lexicography, but we might also consider how this could work for neighbouring fields such as Lexicology, Terminology, and Translation Studies, which is what I did for an interdisciplinary conference at Palermo a couple of years ago (Hartmann forthc. a).

The first criterion, in line 1, is “subject matter”, or the range of topics typically treated in our field, in terms of both the practical activities and the theoretical principles that may be claimed to underlie them. The relationship between lexicographic practice and theory is not straightforward, and I have come to the conclusion that statements made in the literature on this are often simplifications or exaggerations, e.g. when Wiegand (1989, 1998) denies practical lexicography the status of a discipline, or when Atkins & Rundell (2008) in their recent textbook take a strongly anti-theoretical position.

Table 4. Criteria for disciplinary status

Criteria	Examples
1 Subject matter	(a) Practice (fieldwork, description, presentation) (b) Theory (stock-taking, factor analysis, principles)
2 Body of knowledge	Professional processes (compilation phases), text typology, text structure...
3 Perspectives	Critical perspective, historical perspective, typological perspective, structural perspective, user perspective, IT perspective...
4 Methods	Data-collection (corpus work), surveying (observation), testing (experimentation)...
5 Modes of discourse	Conference proceedings, journals, textbooks, monographs, reference works...
6 Institutions	Associations, academies, research centres, publishers...

The subject matter for the practising lexicographer consists in producing a particular dictionary – or, in the wider sense, a “work of reference” – with the purpose of providing information for the benefit of potential users, in terms of three main tasks: “fieldwork” (or recording), “description” (or editing) and “presentation” (or publishing). It is the dictionary researcher (or metalexicographer) who studies these lexicographic processes as part of an academic (or even “scientific”) investigation, in terms of such tasks as stock-taking, factor analysis and the elaboration of principles which underlie the phenomena of “codification” and “reference”, typically in a university setting.

Interestingly, even more established academic disciplines have often retained tensions between practice and theory, as in medicine versus medical science, music versus musicology, business versus economics, or gardening versus horticulture. However, it is evident that there is no uniform pattern across all fields. Thus, for the arts, there is a distinction between “art” as (visual) practice and one predominant theoretical perspective, “art history”, as a label for the context of teaching the subject. And in linguistics, we have the division between “theoretical linguistics” and “applied linguistics”, the latter covering such practice-oriented activities as language teaching, speech therapy and translation (and even lexicography), sometimes admittedly used for the purpose of academic upgrading and image-building.

The second criterion (in line 2) is usually called “body of knowledge”. In lexicography, this results from the chief tasks of the dictionary-maker, in terms of professional codifying activities, which can be further extended to such topics as the classification of reference works into genres, the text structure of information categories like orthography, definitions and usage examples, and even the development of lexicographic traditions for one or more languages.

Moving on to line 3, the next criterion is “perspectives”, which I have already discussed in Section 4 above, where I distinguished such compartments as dictionary criticism, dictionary history, dictionary typology, dictionary structure, dictionary use, and dictionary IT. I should add here, by the way, that the three dots at the end of each line in the table indicate that the list of items may not be complete, so there may well be more perspectives to distinguish than the six listed there.

The fourth criterion of disciplinarity (at level 4) is concerned with so-called methods. We need to be careful here not to confuse the methods used as working procedures and tools for practical activities, such as the dictionary-compiling process, with the more theoretical methods and procedures used in academic research, such as the various techniques for verifying hypotheses by collecting empirical evidence through observational surveys and experimental tests. In metalexicography, the methodologies which are appropriate differ, of course, according to which of the six perspectives may be involved.

Thus, *dictionary criticism* often uses a very personal approach, similar to writing an essay, so here we need to develop more objective standards, ideally supported by international agreement.

For *dictionary history*, the many studies – before and after the 250th anniversary of Samuel Johnson’s *Dictionary of the English Language (DEL)* – have drawn on various linguistic, literary and other cultural factors to analyse and bring to life the English lexicographic tradition, sometimes in comparison with that of other languages and countries, but mostly with the methods used in the more traditional faculties of arts and humanities.

For *dictionary typology*, a different and interdisciplinary approach must be pursued, to come to terms with the many diverse genres of reference works that are available for many languages, communication channels and purposes.

For *dictionary structure*, it takes yet another focus to describe the various information categories and their arrangement in various search and access formats.

Even for the relatively straightforward *user perspective*, choices have to be made between several different survey techniques (such as questionnaire, interview, protocol, experiment and test) which were originally associated with other disciplines, especially in the social sciences.

Finally, for *dictionary IT*, there are very few methodological precedents, especially as we are being offered new computational techniques day by day, e.g. for corpus-based fieldwork.

The fifth criterion, at level 5, is “modes of discourse”, or ways of communication that are appropriate within a field and between the field and the outside world, through publications of all kinds, from conference proceedings and journals to textbooks and other specific genres. Conference proceedings I have already mentioned; another important and often neglected text genre is that of periodicals. Having recently completed a paper which surveys journals of relevance to lexicography (Hartmann *forthc. d*), this has made me aware of how much these serial publications contribute to collaboration between experts, examples being the journal in which my survey paper is being published, *Lexikos* of AFRILEX, but also others like *Lexicographica*, *Dictionaries*, *IJL* and *LexicoNordica*.

I have also mentioned textbooks such as the one by Atkins & Rundell (2008), bibliographies such as Zgusta’s (1988), who’s who manuals such as *WWL* (1996), readers such as Hartmann (2003) and festschrift volumes such as Kachru & Kahane (1995), but I have not yet discussed the so-called monograph as the typical medium by which research results (such as doctoral dissertations and surveys) are publicised, one recent example from the Nordic scene being Sven Tarp’s *Lexicography in the Borderland between Knowledge and Non-Knowledge* (2008). And we should not forget the text type of reference works; not only all the dictionaries that lexicographers produce, but also the encyclopedic and terminological handbooks and manuals that serve the members of our field, such as *W/D/D*, *NLO* and *DoL*.

The final criterion is “institutions”, in line 6, i.e. the places where activities such as lexicography (and neighbouring fields such as terminology) are pursued. (They may not even be called “departments” or “institutes”, but “centres”, and their bosses may be called “directors” rather than “professors”.) I can only specify a few representative names of such higher-education establishments in Europe:

- in the United Kingdom, the University of Birmingham (which incorporated the Exeter Dictionary Research Centre on my retirement a few years ago),
- in France, the Universities of Cergy-Pontoise (which has a “Musée Virtuel des Dictionnaires”) and Lille 3-Charles-de-Gaulle,
- in Germany, the University of Erlangen-Nürnberg,
- in Italy, the University of Torino,
- in Spain, the Universities of La Coruña and Pompeu Fabra Barcelona, and
- in the Nordic countries, the Universities of Aarhus and Oslo.

Some universities have specialist centres in related fields, such as English linguistics at Oxford, corpus linguistics at Stuttgart, Louvain, Pisa, Brno and Copenhagen, translation studies at Guildford, Saarbrücken, Granada and Tampere, and terminology studies at Lyon and Vaasa.

At several of these institutions postgraduate training programmes concentrating on lexicography are on offer, especially at M.A. level, but undergraduate courses with lexicography as a degree subject are still extremely rare in most universities. A report published 12 years ago by Edward Gates (1997) mentioned some of these, including some of their inherent limitations and the fact that changes are continuous and surveys of lexicographic training are rare. There is some evidence, however, that graduates are likely to become the leaders of the discipline in the next generation, which has certainly happened to some of the people whose M.A., M.Phil. and Ph.D. work I have had the pleasure to supervise. I have a list of more than 1,500 such theses and dissertations (in Section 12 of my *IDLI* project); but it has to be admitted that up-to-date statistics are extremely difficult to find, as higher education institutions do not always list their graduates and the titles of their dissertations, and even internet search engines such as the *Online Computer Library Center (OCLC)* do not cover all institutions by countries and by subjects. Even where we have the figures, the number of dissertations – and dictionary research centres – is still infinitesimally small in comparison with the number of universities in each of the countries we may be interested in.

I should perhaps also mention the fact that “lexicography centres” can also be affiliated with various publicly funded dictionary projects at commercial dictionary publishers, with national academies of art and/or sciences, with regional language councils, or with terminology boards, such as the *OED* at Oxford, the Instituut voor Nederlandse Lexicologie at Leiden, the Accademia della Crusca at Firenze, the Norsk Språkråd at Oslo and similar bodies in other Nordic countries.

The final mark of acceptability for a discipline can be said to have arrived when people realise that its inherent “knowledge” has been consolidated to such an extent that a set of instruments and tests have been elaborated (in the way that established medicine has developed reliable measures and tools that can diagnose and treat illnesses) to help solve practical problems and to advance research, so that there is a continuous cycle that leads from existing disciplinary knowledge to innovation and self-improvement. A number of efforts will be required to achieve, maintain and improve the professional maturity of the members of the disciplinary community we are working towards. This includes things like academic standards that we want to raise in dictionary research, a better dictionary awareness we want to achieve in general education, and great-

er commercial success we want our publishers to enjoy. Some of these issues are mentioned in a thematic issue on “Lexicography as an Independent Discipline” (six contributions edited by Henning Bergenholtz and Rufus Gouws) to be published later this year in the *International Journal of Lexicography*.

Before I move on towards the area of desiderata, the subject of the next section, I need to mention an idea which has occupied me for a few years and that may help us deal with the complex relationships *between* disciplines. I think it would be useful to distinguish what I call “sister disciplines” from “mother disciplines” and “daughter disciplines”. *Sister disciplines* of metalexigraphy are neighbouring fields such as Lexicology, Terminology, Translation Studies, Onomastics, Dialectology and Library Studies, which overlap in many ways with dictionary-making, dictionary use and dictionary research. *Mother disciplines* are subjects such as, firstly, Linguistics (with which lexicographers have had a love-hate-relationship for many years, and I often find myself wondering whether linguists know and care less about dictionaries than lexicographers know and care about language), secondly, Semiotics, and thirdly, Information Technology, and *daughter disciplines* include such specialisations as Indexing, Word-processing, Printing and Publishing. I will return to this topic in a moment.

6. Desiderata for dictionary research

My fifth question is: What are the essential requirements for improving dictionary research? In Table 5, I list some of the desiderata and priorities, and I illustrate them here by reference to a number of solutions that have been proposed in order to bring about improvements.

Metalexigraphy needs to be developed as an academic discipline, as we have seen already, and this desideratum is specified in the table under the first sub-heading of “dictionary theory”. This goal can be achieved by starting new ventures or by building on existing ones, either at traditional academies or at new universities, but it also requires the supply of more publications, with handbooks such as the massively influential encyclopedia *W/D/D* (3 volumes 1989–1991, Vol. 4 forthc.), or with book series such as the German-based *Lexicographica Series Maior*, the much more recent Italian-based series *Lexicography Worldwide*, and the two French series that I cited in Table 2: *Lexica* and *Études de lexicologie, lexicographie et dictionnairique*.

There needs to be greater recognition of the processes that lead to the compilation and production of reference works (this desideratum I include in line 2 under the heading of “dictionary awareness”), which involves the provision

Table 5. *Desiderata for dictionary research*

Desiderata	Component elements	Examples
1 Dictionary theory	Improved disciplinary framework for metalexigraphy, including better publications and records of meetings	<i>W/D/D</i> (1989–1991, <i>forthc.</i>), <i>Lexicographica Series Maior</i> (1984–), <i>Lexicography Worldwide</i> (2006–)
2 Dictionary awareness	Improved documentation standards in practice and theory, including better job descriptions and inventories	<i>Who's Who in Lexicography</i> (1996), <i>DDEE</i> (1997), Städtler (2003), Magay (2004), <i>INTUTE</i>
3 Dictionary culture	Improved stock-taking and profiles of protagonists, including better training courses and interaction between groups	Gates (1997), TNP's <i>Dictionaries in Language Learning</i> (Hartmann 1999)
4 Dictionary research	Improved framework of perspectives and methodologies, including better research centres, guides and workshops	DRCs (e.g. Aarhus), corpus archives (e.g. <i>Oxford Text Archive</i>), Bibliographies (e.g. <i>OCLC</i>)
5 Inter-disciplinary contacts	Improved interaction with mother, sister and daughter disciplines, as well as data-supplying fields	Networks (<i>SIGLEX</i> of <i>ACL</i> , <i>REALITER</i> , <i>RIFAL</i>), <i>lamartino</i> (<i>forthc.</i>)
6 International contacts	Improved global overviews, registers and directories	<i>EURALEX</i> , Huang (1994), <i>IDLI</i> (Hartmann in progress)

of better job-descriptions and training facilities as well as records of dictionary publishers and lists of lexicographers, the improvement of records of archives and special libraries around the world specialising in dictionaries and other reference works, and the supply of more and better inventories. Examples are the *Who's who* published by *EURALEX* (*WWL* 1996), the general (but limited) catalogue of dictionaries *Dictionary of Dictionaries and Eminent Encyclopedias* (*DDEE* 1997), the book on German historical dictionary projects edited by Thomas Städtler (2003), the bibliography of Hungarian dictionaries edited by Tamás Magay (2004), and registers of institutions such as *INTUTE*, a consortium of seven British universities running a useful search engine for four subject

groups: science and technology, arts and humanities, social sciences, and health and life sciences.

There needs to be more interaction between the potential protagonists (listed under the title “dictionary culture”), notably of dictionary compilers, of dictionary users, of language teachers and of dictionary researchers, by spreading information through general education and through the media. We need more comparative records on such things as: who carries out the practical work; who is responsible for the theory; who are the pioneers and leaders in our relatively new discipline; at which cities and academic centres are they active; and what is it that determines which kinds of courses are offered to which kinds of students, perhaps even with the occasional support of scholarships?

What this illustrates is that more needs to be done to underline the importance of a theoretical foundation for lexicography, not only by intensifying dictionary research of all kinds, but by developing a framework that links all these efforts together. Important case studies that have convinced me of this are two Europe-wide initiatives in the early and late 1990’s (I am grateful to several NFL members for their help with these tasks then):

- the *ERASMUS Consortium*, which encouraged several M.A. programmes at Exeter and a few other places (such as Amsterdam, Lille, Barcelona and Oslo), although we have not kept good records of them since, including any dissertations and theses resulting from these courses, and
- the European *Thematic Network Project* (with its *Sub-Project on Dictionaries in Language Learning*), which provided overviews of and recommendations on the “dictionary scene” in Europe, including Denmark (by Henning Bergholtz), Finland (by Krista Varantola), Norway (by Lars Vikør) and Sweden (by Lars Vikør and Sven-Göran Malmgren), all in Hartmann (1999).

However, I think much more needs to be done to make the different groups aware of each other, e.g. language teachers of both dictionary makers and publishers, compilers of reference works of their typical users, and researchers of all of these. At the moment I cannot think of any institutions (other than a few dictionary research centres I have mentioned) which have contributed significantly to this task, and that is why I am working on an *International Directory of Lexicography Institutions* in the hope that such information can prove helpful.

All perspectives need to be brought together to develop improved “dictionary research” (alternatively, we may agree on a better title for this discipline), in terms of universally valid theoretical frameworks and methodologies, better specialist research guides, more and better specialist workshops, and better bibliographical accounts of available projects and results, e.g. in the form of corpus

archives such as the *Oxford Text Archive* and documentation centres such as the *Online Computer Library Center* at Dublin, Ohio (relevant websites are listed in the Bibliography).

The problem is that we still do not have a fully developed methodology for certain types of research, and much more needs to be done in this respect, as I have already pointed out, e.g. in dictionary criticism, what are the right ways to proceed? (This has been illustrated by at least one of the issues of *LexicoNordica*, No. 10 in 2003, which was devoted to the still underdeveloped subject of “ord-bogsanmeldelser”, pursued since by more and more critical reviews.)

We need to encourage interdisciplinary contacts (line 5), not only in terms of what I said earlier about so-called mother/sister/daughter disciplines, but also about so-called data-supplying disciplines, especially when the aim of lexicography is the compilation of LSP dictionaries, so that for a dictionary of pronunciation we need to rely on data produced by linguistic phonology, or for a dictionary of music we need to incorporate information supplied by musicians and musicologists.

Distinguishing between mother, sister, daughter and data-supplying disciplines may help us indirectly to narrow down some of the directions in which lexicography itself is moving. One important idea is that of an overarching discipline that lexicography could be considered to be part of. For the last 10 to 15 years, Tom McArthur and I have been advancing the notion of “reference science”, which brings together elements of lexicography and information technology. McArthur (1998) has defined reference science as “the study of all aspects of organising data, information, and knowledge in any format whatever, for any purpose whatever, using any materials whatever”, and identified three sub-fields within it, *lexicography* (or dictionary-making), *encyclopedics* (or the production of encyclopedias and other general reference works, such as atlases, gazetteers and almanacs), and a third which does not have a name yet but covers tabulations (such as time-tables), directories (such as telephone books), and catalogues. The result of such a view would be that we have “reference professionals” producing “reference works” for people with “reference needs” and “reference skills”.

Similarly, Sven Tarp (2007) has argued the case for what he has called “informology”. Motivated by his work on LSP, he has acknowledged the various connections that “lexicography in the information age” needs to develop in order to supply the knowledge that dictionary users are seeking, typically in close interaction with computer technology. This is in line with recent thinking about the development of a so-called knowledge society, with authors such as Barry Nyhan (2002) stressing further advances in various aspects of science, social science and education, and several specialised bodies (such as the Associa-

tion for Terminology & Knowledge Transfer at Copenhagen), “special interest groups” (such as *SIGLEX* of the international Association for Computational Linguistics), and other interdisciplinary “networks” supporting this trend (such as the Francophone *REALITER* or *Red Panlatina de Terminología* at Barcelona and *RIFAL* or *Réseau International Francophone d’Aménagement Linguistique* at Québec).

Whether we actually end up with such a knowledge-based and information-age-supported reference science or not, it is certainly true that we do require more interdisciplinary collaboration in order to investigate the problems of dictionary-making and dictionary use in conjunction with linguistics, education, terminology, IT and other fields (like library science), in order to achieve more realistic generalisations.

And this should also include the bilingual or interlingual angle, either with the help of translation studies or contrastive linguistics, an area which I tried to cover with a selection of my essays published a couple of years ago under the title *Interlingual Lexicography* (Hartmann 2007), although it does not include a paper I wrote in German for the Jyväskylä Conference in 1994 on the relevance of dictionary research for bilingual lexicography (Hartmann 1994).

Finally, a more universal framework needs to be developed for international contacts (line 6), e.g. by encouraging global stock-taking, networks, exchanges and cooperation, not just between countries, but continents. An example of the first is the paper by Jianhua Huang (1994) in a set of proceedings from a conference in Hong Kong, an example of the second is the Exeter DRC Workshop on *Lexicography in Africa* which was held in 1989 (Hartmann 1990a).

7. Implications for the future

So: has lexicography “arrived”? I think the answer is “Yes, nearly”. Has it “matured” (enough)? Here the answer is “probably not; a few more things to do”, as many tensions remain between practice and theory, between tradition and innovation, and between optimistic enthusiasm and pessimistic criticism.

In Table 6, I try to summarise my main points, with special reference to the part of Europe served by NFL (hoping that my selection of these six points is representative of all the various modes of discourse, approaches, specialisations and institutions that I have cited).

Line 1 addresses the need for more meetings to bring people together, and a useful example of this desideratum are the proceedings of the ninth conference in the successful series of 10 since 1991, the one held in Iceland in 2007, edited by Ásta Svavarsdóttir et al. (2008).

Table 6. Implications for the future

Promote actions	Examples
1 Meet at conferences	Promote contacts (proceedings Svavarsdóttir et al. 2008)
2 Follow your leaders	Promote training (report Vikør 1999)
3 Respect theory and practice	Promote both (textbook Svensén 2004)
4 Respect all research perspectives	Promote LSP (textbook Bergenholtz & Tarp 1995)
5 Develop methodologies	Promote empirical approach (research paper Varantola 1998)
6 Keep raising standards	Promote knowledge (survey paper Malmgren 2002)

Line 2, the motto “follow your leaders” is relevant in the promotion of training, e.g. in the helpful survey/report of “dictionary didactics” in Norway by Lars Vikør (1999), which was part of our effort to look at the way dictionaries are treated in the language learning context of various countries of the European Union.

Line 3, a reminder to respect both theory and practice, is exemplified in the excellent textbook for general lexicography by Bo Svensén (2004), which covers all the important issues from dictionary typology to dictionary structure and from words and collocations to electronics and ethics.

Line 4, a similar reminder to respect all relevant research perspectives, is illustrated by another textbook, edited by Henning Bergenholtz and Sven Tarp (1995), which uniquely combines LSP lexicography and terminology in a way that had not been attempted before.

Line 5 supports the case for appropriate research methods; this is the groundbreaking paper on the user perspective by Krista Varantola (1998) whose empirical observation of translators in action shows what a wide range of reference needs and skills are required in this often neglected complicated process.

Last, but not least, Line 6 presents an example of how brilliantly the work done in one area can be summarised, in the form of Sven-Göran Malmgren’s plenary paper on the Nordic scene for the 2002 EURALEX Congress at Copenhagen.

There is hardly anything I can add to all that. What I have tried to do here is to examine six aspects of this difficult subject (conferences, pioneers, perspectives, disciplinary criteria, desiderata and a cautious look into the future), and I trust that at least some of it has been helpful. Finally, I must apologise that I could not cover every angle of the topic, that many of the issues are still waiting

for further improvements, and that I may have misinterpreted some aspects of the situation in the Nordic countries.

REFERENCES

Cited dictionaries and other reference works, including relevant websites:

- COBUILD = Collins COBUILD English Language Dictionary ed. by John Sinclair et al. London/Glasgow 1987, [2nd edn] 1995.
- DDEE = Dictionary of Dictionaries and Eminent Encyclopedias comp. by Thomas Kabdebo & Neil Armstrong. London 1997.
- DEL = A Dictionary of the English Language [...] comp. by Samuel Johnson. London 1755.
- DoL = Dictionary of Lexicography comp. by R. R. K. Hartmann & Gregory James. London 1998/2001.
- ELIS = Encyclopedia of Library and Information Science ed. by Alan Kent et al. New York [33 volumes] 1968–1983.
- HFG = Halliwell's Film, Video and DVD Guide 2007 comp. by John Walker. London [21st edn] 2006.
- INTUTE = INTUTE at Manchester, U. K. <http://www.intute.ac.uk/>.
- L/L = Lexikologie/Lexicology. Ein internationales Handbuch zur Natur und Struktur von Wörtern und Wortschätzen. An International Handbook on the Nature and Structure of Words and Vocabulary ed. by D. Alan Cruse et al. Berlin 2002–2005.
- NCFCF = [A] New Concise French-Chinese Dictionary ed. by Jianhua Huang. Beijing 1983.
- NLO = Nordisk leksikografisk ordbok comp. by Henning Bergenholtz et al. Oslo 1997.
- OCLC = Online Computer Library Center at Dublin, Ohio <http://www.oclc.org/>.
- OED = Oxford English Dictionary ed. James Murray et al. Oxford [1st edn 10 volumes] 1884–1928, [12 volumes and supplement] 1933, [4-volume supplement] 1972–1986, [2nd edn 20 volumes] 1989, 3rd edn in preparation.
- REALITER = Red panlatina de terminología at Barcelona, ES <http://www.realiter.net/>.
- RIFAL = Réseau international francophone d'aménagement linguistique at Québec, CA <http://www.rifal.org/>.
- VAC = Vocabolario degli Accademici della Crusca [...]. Firenze 1612, 1623, 1691, 1738, 1863–1923.
- W/D/D = Wörterbücher/Dictionaries/Dictionnaires. Ein internationales Handbuch zur Lexikographie. An International Encyclopedia of Lexicography. Encyclopédie internationale de lexicographie ed. by Franz J. Hausmann et al. Berlin 1989–1991.
- Dictionaries. An International Encyclopedia of Lexicography: Recent Developments with Special Focus on Computational Lexicography ed. by Rufus Gouws et al. Berlin [in preparation].
- Wikipedia = Wikipedia Electronic Encyclopedia <http://en.wikipedia.org/wiki/>.
- WSK = Wörterbücher zur Sprach- und Kommunikationswissenschaft ed. by Herbert E. Wiegand & Stefan Schierholz. Heidelberg/Erlangen, DE <http://www.wsk.uni-erlangen.de/>.

WWL = Who's Who in Lexicography. An International Directory of EURALEX Members comp. by Steven McGill. Exeter 1996.

Other literature

- Atkins, B. T. S. & Rundell, Michael, 2008: *The Oxford Guide to Practical Lexicography*. Oxford.
- Becher, Tony, 1989: *Academic Tribes and Territories. Intellectual Enquiry and the Cultures of Disciplines*. Buckingham.
- Beni, Paolo, 1612: *L'Anticrusca ovvero il paragone del italiana lingua* [Reprint ed. by G. Casagrande]. Firenze [2 volumes 1982, 1983].
- Bergenholtz, Henning & Gouws, Rufus (eds.), *forthc.*: "Lexicography as an Independent Discipline" [thematic issue], *International Journal of Lexicography*.
- Bergenholtz, Henning & Tarp, Sven (eds.), 1995: *Manual of Specialised Lexicography*. Amsterdam.
- Busa, Roberto, 1971: *Concordances*. In: *ELIS* Vol. 5. Pp. 592–604.
- Coleman, Julie & McDermott, Anne (eds.), 2004: *Historical Dictionaries and Historical Dictionary Research*. Tübingen.
- Dubois, Jean, 1962: *Recherches lexicographiques: esquisse d'un dictionnaire structural*. In: *Études de linguistique appliquée* 1. Pp. 43–48.
- Gates, J. Edward, 1997: *A survey of the teaching of lexicography, 1979–1995*. In: *Dictionaries* 18. Pp. 66–91 [reprinted in Hartmann 2003, Vol. I, 124–147].
- Hartmann, R. R. K. (ed.), 1979: *Dictionaries and Their Users. Papers from the 1978 B.A.A.L. Seminar on Lexicography*. Exeter.
- Hartmann, R. R. K. (ed.), 1984: *LEXeter '83 Proceedings [EURALEX 1st Congress]*. Tübingen.
- Hartmann, R. R. K. (ed.), 1986: *The History of Lexicography. Papers from the DRC Seminar at Exeter, March 1986*. Amsterdam.
- Hartmann, R. R. K. (ed.), 1990a: *Lexicography in Africa. Progress Reports from the Dictionary Research Centre Workshop at Exeter, 24–25 March 1989*. Exeter.
- Hartmann, R. R. K., 1990b: *A quarter of a century's lexicographical conferences (symposium)*. In: *BudaLEX '88 Proceedings [EURALEX 3rd Congress]*, ed. by Tamás Magay & Judit Zsigány. Budapest. Pp. 569–575.
- Hartmann, R. R. K., 1992: *Learner's references: from the monolingual to the bilingual dictionary*. In: *EURALEX '92 Proceedings I–II. Papers Submitted to the 5th EURALEX International Congress on Lexicography in Tampere, Finland*, ed. by Hannu Tommola et al. Tampere. Pp. 63–70.
- Hartmann, R. R. K., 1994: *Vier Aspekte der Wörterbuchforschung und ihre Relevanz für die zweisprachige Lexikographie*. In: *Von Frames und Slots bis Krambambuli: Beiträge zur zweisprachigen Lexikographie. Referate der zweiten internationalen Lexikographiekonferenz Jyväskylä, Finnland 24.–26.3.1994* ed. by Irma Hyvärinen & Rolf Klemmt. Jyväskylä. Pp. 9–27.
- Hartmann, R. R. K. (ed.), 1999: *Dictionaries in Language Learning. Recommendations, National Reports and Thematic Reports from the TNP Project 9: Dictionaries*. <http://www.fu-berlin.de/elc/TNPproducts/SP9dossier.doc/>.

- Hartmann, R. R. K., 2001: *Teaching and Researching Lexicography*. London.
- Hartmann, R. R. K. (ed.), 2003: *Lexicography: Critical Concepts*. [3 volumes] London.
- Hartmann, R. R. K., 2005: Pure or hybrid? The development of mixed genres. In: *Facta Universitatis* 3. Pp. 193–208.
- Hartmann, R. R. K., 2006: Onomasiological dictionaries in 20th-century Europe. In: *Lexicographica. International Annual for Lexicography* 21/2005. Pp. 6–19.
- Hartmann, R. R. K., 2007: *Interlingual Lexicography. Selected Essays on Translation Equivalence, Contrastive Linguistics and the Bilingual Dictionary*. Tübingen.
- Hartmann, R. R. K., 2008: Twenty-five years of dictionary research: Taking stock of conferences and other lexicographic events since LEXeter '83. In: *Proceedings of the XIII EURALEX International Congress (Barcelona, 15–19 July 2008)* ed. by Elisenda Bernal & Janet DeCesaris. Barcelona. Pp. 131–148.
- Hartmann, R. R. K., 2009: Interlingual lexicography, with special reference to research priorities. In: *Perspectives in Lexicography: Asia and Beyond* ed. by Vincent Ooi et al. Tel Aviv. Pp. 203–211.
- Hartmann, R. R. K., forthcoming a: Promoting interdisciplinary collaboration between Lexicology, Lexicography, Terminology and Translation: Towards Reference Science? In: *Lexicology, Lexicography and Domain-specific Languages*, ed. by Giovanni Iamartino. Monza/Milano.
- Hartmann, R. R. K., forthcoming b: Mixed dictionary genres. In: *W/D/D Supplementary Volume 5.4* ed. by Rufus Gouws et al.
- Hartmann, R. R. K., forthcoming c: Aids in metalexicographic research. In: *W/D/D Supplementary Volume 5.4* ed. by Rufus Gouws et al.
- Hartmann, R. R. K., forthcoming d: Keeping in touch. A survey of lexicography periodicals. In: *Lexikos* 19.
- Hausmann, Franz J. & Wiegand, Herbert E., 1989: Component parts and structures of general monolingual dictionaries. A survey. In: *W/D/D Vol. 5.1*. Pp. 328–360.
- Heuberger, Reinhard, 2000: *Monolingual Dictionaries for Foreign Learners of English: A Constructive Evaluation of the State-of-the-art Reference Works in Book Form and on CD-ROM*. Wien.
- Huang, Jianhua, 1994: Chinese and Western metalexicography. In: *Entering Text*. Pp. 228–238 [reprinted in Hartmann 2003 Vol. III, 391–404].
- Iamartino, Giovanni (ed.), forthcoming: *Lexicology, Lexicography and Domain-specific Languages*. Monza/Milano.
- Kachru, Braj B. & Kahane, Henry (eds.), 1995: *Cultures, Ideologies, and the Dictionary. Studies in Honor of Ladislav Zgusta*. Tübingen.
- Lew, Robert, 2004: *Which Dictionary for Whom? Receptive Use of Bilingual, Monolingual and Semi-bilingual Dictionaries by Polish Learners of English*. Poznań.
- Lutzeier, Peter R., 2002: Der Status der Lexikologie als linguistische Disziplin. In: *L/L Vol. 21.1*. Pp. 1–14.
- Magay, Tamás (ed.), 2004: *A magyar szótárirodalom bibliográfiája [Bibliography of Hungarian Dictionaries]*. Budapest.
- Magay, Tamás & Zigány, Judit (eds.), 1990: *BudaLEX '88 Proceedings [EURALEX 3rd Congress]*. Budapest.
- Malmgren, Sven-Göran, 2002: Lexicography in the Nordic countries: Traditions and recent developments. In: *Proceedings of the Tenth EURALEX International Con-*

- gress, Copenhagen, August 13–17, 2002, ed. by Anna Braasch & Claus Povlsen. Copenhagen. Pp. 39–54.
- McArthur, Tom, 1998: What then is reference science? In: *Living Words. Language, Lexicography, and the Knowledge Revolution*. Exeter. Pp. 215–222.
- Murray, James A. H., 1900: The evolution of English lexicography. In: *The Romanes Lecture*. Oxford: Clarendon Press [Reprints ed. by Robert Burchfield 1993 in *International Journal of Lexicography* 6, pp. 89–122, in Hartmann 2003 Vol. I, pp. 45–69 and in Wikipedia].
- Nyhan, Barry, 2002: *Taking Steps towards the Knowledge Society: Reflections on the Process of Knowledge Development*. Luxembourg.
- Ooi, Vincent B. Y., 1998: *Computer Corpus Lexicography*. Edinburgh.
- Rossi, Paolo, 2001: *The Birth of Modern Science*. Oxford.
- Ščerba, Lev V., 1940: “Opyt obshchei teorii leksikografii”. In: *Izvestiia Akademii Nauk SSSR* 3. Pp. 89–117 [Reprints “Towards a general theory of lexicography” ed. by Donna Farina 1995 in *International Journal of Lexicography* 8, pp. 304–350 and in Hartmann 2003 Vol. III, pp. 11–50].
- Städtler, Thomas (ed.), 2003: *Wissenschaftliche Lexikographie im deutschsprachigen Raum*. Heidelberg.
- Svavarsdóttir, Ásta et al. (eds.), 2008: *Nordiske studier i leksikografi 9. Rapport fra konference om leksikografi i Norden, Akureyri 2007*. Reykjavík.
- Svensén, Bo, 2004: *Handbok i lexicografi. Ordböcker och ordboksarbete i teori och praktik* [2nd edn]. Stockholm. [English translation: *A Handbook of Lexicography. The Theory and Practice of Dictionary-Making*. Cambridge 2009].
- Tarp, Sven, 2007: Lexicography in the information age. In: *Lexikos* 17. Pp. 170–179.
- Tarp, Sven, 2008: *Lexicography in the Borderland between Knowledge and Non-Knowledge*. Tübingen.
- Varantola, Krista, 1998: Translators and their use of dictionaries: User needs and user habits. In: *Using Dictionaries. Studies of Dictionary Use by Language Learners and Translators*, ed. by B. T. S. Atkins. Tübingen. Pp. 179–192.
- Vikør, Lars S., 1999: The dictionary scene in Norway. In: *Dictionaries in Language Learning. Recommendations, National Reports and Thematic Reports from the TNP Project 9: Dictionaries*, ed. by R. R. K. Hartmann. <http://www.fu-berlin.de/elc/TNPproducts/SP9dossier.doc/>. Pp. 28–29.
- Wiegand, Herbert E. (ed.), 1989: Der gegenwärtige Status der Lexikographie als linguistische Disziplin. In: *W/D/D Vol. 5.1*. Pp. 246–280.
- Wiegand, Herbert E., 1998: *Wörterbuchforschung. Untersuchungen zur Wörterbuchbenutzung, zur Theorie, Geschichte, Kritik und Automatisierung der Lexikographie*. Berlin.
- Zgusta, Ladislav [with the assistance of Donna Farina], 1988: *Lexicography Today. An Annotated Bibliography of the Theory of Lexicography*. Tübingen.

APPENDIX. CHRONOLOGY 1990–2009

1990	EURALEX Congress 4 at Benalmádena ES; International Symposium on Lexicography 5 at Copenhagen DK; AUSTRALEX Biennial Meeting 1 at Sydney AU
1991	NFL Konferanse 1 at Oslo NO; Seminario 1 at Jaén ES; International encyclopedia <i>Wörterbücher/Dictionaries/Dictionnaires</i> (Vol. III) published in Berlin DE; M.A. in Lexicography started at Exeter GB; journal <i>Lexikos</i> No. 1 published at Stellenbosch ZA
1992	EURALEX Congress 5 at Tampere FI; International Symposium on Lexicography 6 at Copenhagen DK; Colloquium on Onomasiological Dictionaries at Essen DE
1993	NFL 2 at Copenhagen DK; Lexicographical Society of China Conference 1 at Guangzhou CN; La Journée des Dictionnaires 1 at Paris FR
1994	EURALEX Congress 6 at Amsterdam NL; International Symposium on Lexicography 7 at Copenhagen DK; LSC Symposium on Bilingual Lexicography 1 at Dalian CN
1995	NFL 3 at Reykjavik IS; DSNÁ Biennial Meeting 10 at Cleveland OH; Festschrift in Honor of Ladislav Zgusta (Kachru & Kahane); Summer School/Seminar in Lexicography 1 at Ivanovo RU
1996	EURALEX Congress 7 at Göteborg SE; International Symposium on Lexicography 8 at Copenhagen DK; <i>Who's Who in Lexicography</i> published at Exeter GB; AFRILEX 1 at Johannesburg ZA
1997	NFL 4 at Espoo FI; <i>NLO Dictionary of Lexicography</i> published (Bergenholtz et al.); JdD 5 at Cergy-Pontoise FR; Dictionaries in Asia Conference (and ASIALEX founded) at Hong Kong CN
1998	EURALEX Congress 8 at Liège BE; International Symposium on Lexicography 9 at Copenhagen DK; <i>Dictionary of Lexicography</i> (Hartmann & James); JLB Colloquium 1 at Paris FR; AUSTRALEX 5 at Brisbane AU
1999	NFL 5 at Göteborg SE; ASIALEX Conference 1 at Guangzhou CN; CompLex Conference 1 at Balatonfüred HU; International Symposium on Linguistic and Specialist Dictionaries at Kuwait KW
2000	EURALEX Congress 9 at Stuttgart DE; EUROPHRAS Conference 1 at Uppsala SE; International Symposium on Lexicography 10 at Copenhagen DK
2001	NFL 6 at Tórshavn DK; Dictionary Research Centre moved from Exeter to Birmingham GB; LSC 5 at Beijing CN; JACET 1 at Tokyo JP

2002	EURALEX Congress 10 at Copenhagen DK; International Symposium on Lexicography 11 at Copenhagen DK; JdD 10 at Cergy-Pontoise FR; International Conference on Historical Lexicography 1 at Leicester GB; KOREALex Conference 1 at Seoul KR
2003	NFL 7 at Volda/Ørsta NO; LSC Symposium on Bilingual Lexicography 5 at Shanghai CN; Seminar in Lexicography 5 at Ivanovo RU
2004	EURALEX Congress 11 at Lorient FR; International Symposium on Lexicography 12 at Copenhagen DK; International Conference on Historical Lexicography 2 at Gargnano del Garda IT; AELex Conference 1 at La Coruña ES
2005	NFL 8 at Sønderborg DK; DSNA Biennial Meeting 15 at Boston MA; AFRILEX 10 at Bloemfontein ZA; AUSTRALEX 10 at Melbourne AU; JLB Colloquium 5 at Paris FR
2006	EURALEX Congress 12 at Torino IT; International Conference on Historical Lexicography 3 at Leiden NL; KOREALex Conference 10 at Seoul KR
2007	NFL 9 at Akureyri IS; International Symposium on Lexicography 13 at Copenhagen DK; International Conference on Lexicology & Lexicography of Domain-specific Languages at Palermo IT; Colloque en l'honneur d'H. Béjoint at Lyon FR; ASIALEX Conference 5 at Chennai IN
2008	EURALEX Congress 13 at Barcelona ES; TLF 50th Anniversary Conference at Nancy FR; International Symposium on Dictionaries and Encyclopedias at Aarhus DK; International Conference on Historical Lexicography 4 at Edmonton CA
2009	NFL Symposium 16 on <i>Ordforbindelser</i> at Copenhagen DK; NFL 10 at Tampere FI; Conference on Corpus Linguistics 5 at Liverpool GB; Conference on E-Lexicography at Louvain BE