On the Need for a Dictionary of Academic English

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The second half of the 20th century has seen an unprecedented increase in the use of English as an auxiliary language in the field of international scholarship. As a consequence, there is no end of abstracts, papers, book reviews, monographs and posters turned out by scientists and scholars whose native language is other than English and who use, with varying success, English as a foreign language when they choose to let the world know, preferably in a primary publication, about the test-tube baby of their own design.

Nobody should be taken by surprise that the standard of English reached by academics who are not native speakers of English does not always come up to the required level of competence. Many an editor must have agonised over curiously split infinitives, participles dangling like hell or sheer gobbledygook camouflaged as English. The language problems of academics who are native speakers of other languages can indeed be disturbing for lexicographers too as is borne out by this quotation from K. Opitz "... we can readily appreciate the general requirement of technical lexicography that only the most basic language handling skills may be assumed on the part of the user." (Opitz 1983b: 172) Owing to human weaknesses such as having been born in the wrong country or, not unlike the plight of the generation, looking in vain for English courses in Hungary in the early fifties, having been born in the right country but at the wrong time, students' and specialists' access to EFL and ESP teaching proper may be severely limited, coupled with a scarcity of reliable grammars and dictionaries. However much we may pride ourselves on the number of English language publications in this country, the level of the English used tends to be rather uneven and, at times, the scientific and scholarly results claimed will be obscured by the Hunglish turns of phrase that the text is littered with.

Some of these problems can be effectively remedied by high level EFL teaching since a better command of Colloquial English, paired with extensive reading in one's own field of research is likely to lead to some improvement even in one's ability to communicate in writing. Yet, even such a salutary state of affairs is far from satisfactory. Both arts and science students as well as mature academics whose English language skills need polishing up will benefit enormously from courses designed to teach English for Specific Purposes. A number of people involved in EFL still look askance at those advocating ESP teaching and tend to assume, quite mistakenly, that a good command of Colloquial English will automatically make academics who are native speakers of other languages fully familiar with the lexical background and stylistic features needed to write standard academic English, including the skills necessary to address conferences. Come to think of it, no native speaker of English who is untrained in academic matters would find it a practicable task to contribute a paper to a learned journal in an acceptable form and style even if he or she was presented with, as well as thoroughly understood, all the facts to be communicated.

As I see it, ESP will eliminate a lot of obstacles from the way of writing professional-looking academic papers but certainly not all. On the one hand, the state of the art in ESP suggests that it is preoccupied with syntax and style in scientific discourse but the importance of the lexicographic background for standard academic English tends to be either underestimated or ignored. This was also pointed out by A. Moulin, "Among the technical or specialised dictionaries now available, very few cater for 'languages for special purposes'. Most of the existing works have been compiled for trained interpreters and translators, members of the professions, etc., but not for LSP learners, a variety of users which lexicographers have so far tended to neglect." (Moulin 1983: 144)

The same seems to hold for the multitude of otherwise excellent manuals instructing scientists how to produce well-written scientific papers (cf. Day 1979, O'Connor and Woodford 1977, and Arnaudet 1984). These guides will give you invaluable advice on how to arrange your ideas, how to organise your paragraphs, tables and diagrams and will go to great lengths in discussing the possible moods of editors, who do their jobs on an honorary basis anyway before, during and after correspondence with you but, with the exception of a few pages listing words and phrases to be avoided, they are, quite naturally, not in a position to provide foreign academics with ample lexical material to assist them in summing up arguments, discussing controversial issues, evaluating experimental results, describing processes, disproving arguments or acknowledging other people's help with their work.

It stands to reason that academics whose knowledge of English is deficient in EFL and ESP terms, won't be able to make full use of such lexicographic guidance. Consequently, dictionaries, lexicons or guides that would address themselves at supplying them with such information presuppose high level EFL and ESP courses at the right time as well as the availability of not only specialist books and learned journals in their own field of research but useful guides on grammar, usage and style in academic discourse.

It is not only scientists and scholars that need this complex linguistic background. Translators tend either to be specialists in their own discipline but may not have undergone EFL and ESP training proper or they are language teachers or trained linguists trying a desperate hand at translating technical or scientific literature but will always be plagued by an inadequate understanding of the field in question. In this respect, one must, of course, hail the numerous machine translation systems that are in operation the world over, which use standardised ways of translating scientific or technical texts.

There are a number of reasons why existing dictionaries cannot fully satisfy the needs of academics who speak English as a foreign language when they set out to communicate their research results or want to write a survey article or a book review. Bilingual dictionaries and native speakers' dictionaries are invariably comprehensive and not segmental in coverage, thus, they will never specifically cater for their needs. Foreign learners' dictionaries, in their turn, will have a natural bias towards the colloquial and, partly, the literary language. In addition, what learned words there are in these sources are either given without an illustrative context or the context provided is not particularly revealing since the examples concerned do not originate from academic publications. In the OALD, for example, under the word **degree** you find the sentence **Their friendship by degrees grew into love**. However well this context illustrates a possible use of the structural idiom **by**

degrees for some passionate extramural purposes, it will only distract the academic from the abstruse topic he is trying to address. Furthermore, words in illustrative examples have invariably fared badly in traditional dictionaries as there is usually no index which would help trace other syntactic uses of individual words scattered in illustrative sentences all over the dictionary. In the same source, under the entry **insensible** you find the useful phrase **by insensible degrees** but even if you suspected that there was another example of the phrase **by degrees** in the dictionary, you could spend hours trying to locate it without any hope of success.

Words such as **degree, fact, description, process** or **theory** are all-important for academics working in any branch of study. As they also belong to the core lexicon of educated English, it is highly unlikely that any academic should have any semantic problems with them, except that some like **process** will function as field-specific terms too. The problems are largely caused by the combinatory potential of these words, which will often be markedly different from what their equivalents have in the target language. Again, lexical collocations which are usually easy to interpret when seen in context, suddenly turn alarmingly difficult in attempts at active use. Rodale's WORD FINDER (Rodale 1956) will tell you, for example, that the word **theory** may co-occur with a great number of verbs, such as **abandon, adopt, advance, apply, arrive at, authenticate, blast, check, conceive, contradict, crush, defend, dismiss** and many others. When an academic consults foreign learners' dictionaries, such as the OALD or the LDOCE he or she is likely to find hosts of illustrative phrases and sentences but, as a rule, not many collocations for words he or she is interested in. Thus, LDOCE will only supply **musical theory** as an adjectival collocation for **theory** and none of the three sentences given contains a verbal collocation.

Should we try a native speakers' dictionary with an impressive array of headwords, such as the LONGMAN DICTIONARY OF THE ENGLISH LANGUAGE (LDE), we will fare no better as the three examples provided under the entry for **theory** do not include any word combinations. As is well-known, a thesaurus includes synonyms and related words, but no collocations, so one will not find ROGET'S THESAURUS, the LONGMAN LEXICON OF CONTEMPORARY ENGLISH or any other thesaurus very helpful in this case. The LONGMAN DICTIONARY OF SCIENTIFIC USAGE, which concentrates on terms rather than general academic vocabulary, *does* record **theory** but omits the words **degree, fact** and **description** altogether, though **process** is extensively treated.

Consequently, the best possible sources to consult are likely to be dictionaries of style or combinatory dictionaries. Reum's A DICTIONARY OF ENGLISH STYLE will give a detailed treatment of **fact, degree, description** and **process** but, probably because of its strong literary bias, it does not even record **theory** (though, in all fairness, it does **theorize**). THE BBI COMBINATORY DICTIONARY OF ENGLISH, which is a rich storehouse of carefully selected word combinations, is extremely helpful in giving a detailed treatment of **fact, degree, description** and **theory**. The last term has 30 collocations given. The word **process**, however, has but two collocations, which is clearly not enough. Rodale's THE WORD FINDER will record 79 adjectives and 40 verbs for **description**, 71 adjectival collocations and 66 verbal ones for **theory** and will shower you with 224 adjectives and 102 verbs for **fact**. Before, however, one goes into raptures at seeing this mind-boggling display of lexical collocations, one has to realise that the THE WORD FINDER is unstructured, the various senses of an entry are not separated and, as a result, verbs, adjectives and adverbs appear

lumped into long lists. Thus, under the headword **fact** one would have to plough through qualifiers like **revolting, sprightly, unpalatable** and dozens of others in one's search for a suitable adjective in an academic context.

From the stylistic point of view, English words and phrases can be assumed to support three basic styles, namely the *pragmatic*, the *rhetorical* and the *academic*. Each can be further subdivided into styles that have a narrower range of application. For example, the kind of language typically used in describing the world around us, without being too technical, the vocabulary relating to various occupations and pastimes, travel and transport, cookery and shopping, the town and the country as well as the sort of language used in official documents and news reports would all come under *pragmatic*. Using pragmatic style people name, specify, describe and compare entities that are visible, audible, tangible, edible, movable or can be discussed without resorting to abstract vocabulary and in a straightforward, down-to-earth and unemotional manner. *Rhetorical* style will, however, come into play when persuasion, argument and emotions are more important than information, discussion and dispassionate description. Thus, the language of advertising and publicity, public speeches and political campaigns, dramatic interchange and emotional outbursts, sales patter and religious ceremonies would all be specific instances of rhetorical style.

Academic style is very different from both pragmatic and rhetorical style as it is neither down-to-earth nor emotive. Scholars and scientists use a kind of language that is both analytic and synthetic, which involves classification, contrasts, conditions, causes and effects and interprets the world in terms of time and space. Thus, academic style involves the use of terms that have various degrees of abstraction, such as **system, set, acid** or **nation; herbivorous, coniferous** or **aboriginal; mucous membrane, phoneme** or **chip**. Undoubtedly, specific terms will be by far the most numerous and will constitute the material to be covered by various terminological dictionaries. However, besides the discipline-specific terms, there are a number of words and phrases that are equally important for the medical scientist and the historian, the linguist and the economist. It is precisely these general words with a scientific or scholarly bias, such as **hypothesis, method, conclusion, goal** or **field; provide, reflect, assess** or **conduct** and a host of others that an academic will want to use time and again.

Experience suggests that specialists and research workers are quick to master the correct use of the terms in their chosen fields but they often resort to the cut and paste method when they are at a loss how to express themselves in academic discourse, sometimes literally lifting whole sentences from other sources because they do have the bricks but not the mortar to hold their writing together. I do see a crying need for a 'Dictionary of Academic Style' (just as much as I do, in other contexts, for one for the rhetorical and the pragmatic styles too) to assist academics and translators, students and researchers in writing in an appropriate style and to eliminate this frantic search for the right phrase in the lexical jungle of running texts.

In spite of the fact that the pragmatic, rhetorical and academic styles are clearly distinct styles, in practice they rarely occur in a distilled form. In newspapers, for example, news reports are often accompanied by news commentaries, thus beside pragmatic style, the reader will witness elements of rhetorical and scientific style too. Similarly, even in a book on serious issues in science you are likely to come across references to various pragmatic matters or even occasional outbursts of emo-

tion, as when William Bull wrote in the Introduction to his book: "... after seventeen years I find myself peculiarly uninterested in whether or not I have exhausted the subject. The subject has exhausted me." (Bull 1963: v—vi).

It is perhaps in abstracts that one may observe the most standardised and distilled form of academic style as this genre allows only for the communication of the most essential points without any digression or personal judgement. In academic book reviews, however, one finds matter-of-fact description as well as personal views, so this genre represents a mixture of academic and rhetorical style. Or again, a paper in the medical sciences will typically include a 'Materials and Methods' section, which will contain elements of pragmatic style too.

In view of all this, lexicographers face a choice whether to supply the three missing links in dictionary writing by keeping to the distilled version of each style or to apply needs analysis results and try to supply a combined package for different occupational needs and thereby produce a greater number of dictionaries with a mixture of styles. Thus, it seems that academics, whether scientists or scholars, research workers, translators and students would all derive great benefit from something like a 'Dictionary of Academic Style'. Such a dictionary would tell academics what collocations to choose from when they stumble upon a stylistic problem in a paper, review, survey article or abstract when they want to sum up points, list features, refute arguments, compare facts, predict results, assess figures, evaluate methods or acknowledge other people's help. It would also supply them with abundant material on academic debates and Conference English as well as lexical entries referring to examinations and experiments, committees and bodies, universities and academies.

There is a dialectical relationship between specialisation and integration in science. In my view, the process of specialisation is better represented in lexicography by means of technical or terminological dictionaries than that of integration. When segmental dictionaries are conceived in contradistinction to all-inclusive dictionaries, they tend to cover small segments of the vocabulary, corresponding to special fields in science and technology, even though the segment in question may have dozens of thousands of terms. In another paper by K. Opitz we find, "The subject content of a segmental dictionary is never the total unrestricted language, but rather a particular scope or perspective of it resulting in a partial view of the language." (Opitz 1983a: 63)

When you consider dictionaries such as the LONGMAN DICTIONARY OF SCIENTIFIC USAGE or the CHAMBERS SCIENCE AND TECHNOLOGY DICTIONARY, they do serve the purposes of integration by including the most essential terms used in related areas in the natural sciences, such as mathematics, physics, chemistry and the life sciences. Yet, in essence, they are terminological dictionaries. At present, there does not seem to be a 'Dictionary of Academic English' on the market, which would be equally useful for the ethnographer and the chemist, the literary scholar and the computer expert. Neither all-inclusive dictionaries, whether for the foreign learner or the native speaker, nor terminological dictionaries are in a position to remind the academic that there is a greater affinity of discourse and style between various fields of study than between a conversation about the weather and a weather forecast. That not only terms but the whole discourse is important is confirmed by R. R. K. Hartmann, "It is not sufficient to be able to allocate a particular text to a class, type, genre or variety: we must also understand the way in which

textual discourse hangs together, how it builds up into a coherent whole..." (Hartmann 1983: 118).

Let five concentric circles represent the wordstock of the English language. The innermost circle (A) will stand for function words, such as auxiliaries, prepositions, pronouns, articles and conjunctions, common in all kinds of speech and writing. The next circle (B) represents the common core of English, all content words that are common in most types of oral and written text. Now we come to the most sensitive area, i.e. circle (C), which has three segments, one for each of the three basic styles. The three segments are markedly different in nature but there is relative uniformity within the segments. I contend that it is these three segments that are rather ill-represented by existing dictionaries. The last but one circle (D) comprises field-specific terms, which are usually familiar to the average speaker even though this familiarity may not always rely on accurate knowledge. These are the terms that tend to appear in integrated science dictionaries, focussing on several disciplines in one reference volume. The outermost circle (E) is where the non-initiated should enter with trepidation because this segment harbours the many thousand terms that are comprehensible for only the specialist and although they may be esoteric for outsiders, they are the most essential working tools of the scientist trained in his field.

I think, in addition to all-inclusive monolingual and bilingual dictionaries focussing on a bit of everything, learners' dictionaries covering circles A and B and English' should also assist the academic in academic discourse (one of the three segments in Circle C).

As far as the actual form of such a dictionary is concerned, I have in mind a package in three parts. Part 1 would be an alphabetical dictionary, concentrating on grammatical and lexical collocations. It would have English definitions as well as Hungarian or some other language equivalents and would primarily serve for recognition purposes. Part 2 would be a conceptually organised lexicon or thesaurus, along the lines of the LONGMAN LEXICON OF CONTEMPORARY ENGLISH. It would have a narrower scope but would treat each entry in greater depth. This part would be suitable equally for passive and active use. Part 3 would be the one most acutely needed, namely a functionally organised, monolingual guide on how to write papers and reviews, how to execute all important logical operations when creating texts in academic discourse. This part would be close to a 'senses to words' type of dictionary and some patterns could be presented in substitution tables. Clearly, this unit would be the most suitable for active use. How important active skills in dictionary use are is pointed out by A. P. Cowie, "... there is considerable evidence that foreign learners use their EFL dictionaries for interpretative rather than productive purposes..." (Cowie, 1983: 107). Most dictionaries, especially bilingual ones, are, however, unsuitable for developing active users' skills because of their inherent limitations, as was pointed out by J. Tomaszczyk, "Unfortunately, the way most of the reference materials published thus far have been prepared makes them useful only for purposes of analysis, recognition or comprehension, and there is nothing, or very little, in them that makes them useful for synthesis or production: they are all 'diagnostic' rather than 'generating'. (Tomaszczyk 1983: 42).

One potential critical view of this project may be that it will foster the use of clichés in academic writing. This criticism is justified to the extent it is also applic-

able to other types of dictionaries that provide collocations, set phrases, idioms and illustrative sentences. A dictionary of this type should not have more than about 3000 entries but, as far as collocations are concerned, each entry should be treated as fully as possible.

To illustrate the way I think entries could appear in a monolingual Dictionary of Academic English, I have included here a tentative entry for the word **information**. For the purposes of this dictionary, all senses of this word have been subsumed under one meaning. The numbers (1—5) introduce the various collocational and structural subtypes, labelled by letters of the alphabet. (The code letters will be explained in the Introduction.) The monolingual dictionary could then serve as the basis for a series of bilingual dictionaries for the academic community.

information *n* (facts, data, etc that give) knowledge unknown to the receiver before its receipt **[1]**(A) absorb ~, access ~, accumulate ~, assimilate ~, be given ~, check ~, classify ~, collect ~, compile ~ *(by questionnaire)*, conceal ~, consult ~, contain ~ *(the ~ contained in specific periodicals)*, convey ~, cross-check ~, demand ~, derive ~ from *(Often, however, sufficient ~ can be derived from tables, diagrams, and captions, to satisfy a user who does not require an answer in depth)*, disseminate ~, elicit *(the required ~)*, evaluate ~, exchange ~, extract ~, feed ~ *(into a computer)*, file ~, find ~ *(quickly)*, furnish ~, gain ~, gather ~, get ~ *(on a particular point)*, give ~ *(the amount of ~ given with each word)*, glean ~, handle ~, have access to ~, have ~ *(have further ~ available)*, hold back ~, impart ~, interpret ~, make ~ available, misuse ~, need ~, obtain ~ (from), offer ~, pass on ~, possess ~, produce ~, provide ~ *(in a source)*, quote *(the most recent)* ~, receive ~, record ~, release ~, request ~, require ~, retain ~, retrieve ~ *(from a computer)*, reveal ~, seek ~ on *(in a source)*, set out ~ *(in a given form)*, sift ~, sort ~, spread ~, store ~, study ~, sum up ~, summarize ~, supply sb with ~, supply ~, track down ~ *(track down the ~ within the database)*, use ~, verify ~ **[2]**(C) the ~ explosion *(to deal with the ~ explosion)*, an ~ file, an ~ index, the ~ interview, ~ retrieval, ~ science, an ~ scientist, ~ service, ~ technology, ~ theory, an ~ unit **[3]**(D) accurate ~, adequate ~, basic ~, bibliographic ~, biographical ~, comprehensive ~, confidential ~, conflicting ~, current ~, detailed ~, encyclopaedic ~, firsthand ~, full ~ *(regarding courses)*, general ~, inside ~, introductory ~, misleading ~, the necessary ~, obsolescent ~, quick-reference ~, recent ~, relevant ~, reliable ~, the remaining ~, the required ~, retrospective ~, secondhand ~, specialized ~ *(give rather specialized ~)*, specific ~, statistical ~, sufficient ~, suitable ~, supplementary ~, up-to-date ~ **[4]**(E) an abundance of ~, access to ~, the bearer of ~, bits of ~, channels of ~, a clearinghouse of ~, crumbs of ~, a dearth of ~, the dissemination of ~ *(orally)*, the flow of ~, a goldmine of ~, (a) lack of ~, much of the ~ *(the work contains)*, a piece of ~, *separate* pieces of ~ *(to supply pieces of ~ of varying extent)*, retrieval of ~, *one's main* source of ~, *statistical* sources of ~, stores of ~ **[5]**(F) ~ about/on *(a topic)*, *all the* ~ on *(the original document)*

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