Introduction

At present, lexicography is a group of specialized skills, a body of received practical wisdom. Some of its features are obviously useful and sensible, some show a typical professional or in-group defensiveness, and some appear to be merely handed down from one cluttered desk to another. There is no overt rationale, and controversies rage in the gulf between principles and practice, with no sign of resolution. This frustrating state of affairs is nowadays largely accepted as inherent in the nature of the craft.

So we can say at the outset that lexicography is not in a proper state to become an academic subject, and will have to be re-shaped, broadened and re-analyzed if it is to be taught as such. We shall have to establish that the work of turning lexicography into an academic subject is worthwhile, and that it can be done.

I hasten to remove the inference that there is anything conflicting between 'academic' and 'practical', as I wish to use these terms. It always saddens me to read a definition of the word academic as "of purely theoretical or speculative interest", or "excessively concerned with intellectual matters and lacking experience of practical affairs", or even "conforming to set rules and traditions: conventional", rather than "belonging or relating to a place of learning" (quotes from COLLINS ENGLISH DICTIONARY, page 7). Equally I want to avoid the ambiguities of 'practical' and use the word practice in the sense "the exercise of a profession" (CED, p.1150). Plenty of professions have strong academic support, and lexicography looks as if it needs that sort of concern. It would be quite wrong to assume that by treating lexicography as an academic subject there is any attack on or denigration of the most mundane considerations of practice. Good practice in lexicography is a brilliant balancing act, accuracy and comprehensiveness against space, cost and clarity. That should be the centre of the study, and not remain a harsh reality that exists conveniently outside the ivory towers.

I have a great admiration for lexicography, but do not think that it is above criticism, or that it would not be improved by academic attentions. In fact, one of the disappointing features I have noticed in the profession is the way in which self-criticism - a very lively occupation - is not fostered and developed, because there is no academic structure to receive it.

Principles and practice

We must try to decide which features of lexicography are inherent, and which accidental. Take the principle of substitutability of definition, for example. Is it possible to
show that the following of this principle leads to definitions which have positive attributes of clarity, conciseness and precision, other things being equal; and conversely that the breaking of it leads to faulty definition? Are there intermediate positions which would recommend following it in certain circumstances and following an alternative strategy in other, clearly identified, circumstances? Whereabouts in the profession, apart from the occasional luxury of a conference, can this matter be debated?

We must try to decide which of the principles are in fact 'principles', in the sense of "a fundamental or general truth or law", or in the sense of "the essence of something", and which are matters more of 'convenience', of habit, of jargon, or of tradition. The more minute typographical distinctions, for example, may be savoured by fellow lexicographers, but ignored or misinterpreted by users.

We must also examine the preoccupations of lexicography to discover whether they are justified, balanced and comprehensive. For example, the activity of lexicography is dominated by sense in the sense of "substance or gist: meaning". Sense divisions, sense groupings, etc. are the main focus of attention. Other matters tend to be secondary, and can become rudimentary or even self-contradictory. In most lexicography, matters of syntax are rudimentary and even in pedagogical lexicography they are secondary. Word class assignment is done with the naivety of the pre-war primary school. We must ask if this is a balanced view of lexicography.

There is something self-contradictory about the widespread custom of made-up examples - a sort of misleading game that the lexicographer plays. Examples are of great value if they are attestations, where the lexicographer cites evidence which can be compared with statements about the language. But when the examples are concocted by the same lexicographer, they have no value at all. It can be claimed that they illustrate the word in use, but one thing we do know is that usage cannot be thought up - it can only occur. Concocted examples are noticeably different from attested ones, and even though research is needed to describe the range of difference, a few moments' study of them makes it clear how unreliable they are. So for two grave and different reasons, we must raise a query over this custom, which appears to be uncritically accepted and defended by the majority of practitioners.

So the first aim of this paper is to put lexicography on the intellectual map, to define it and relate it to contributory and contingent disciplines. From that exercise can be derived a set of postulates about its character and priorities, to be compared with current practice. The latter task is beyond the scope of this paper, and the examples I am using are speculative and illustrative. But already one can see opportunities for serious research of a kind which may enhance future practice.

The job of outlining lexicography as an academic subject carries implications for the training of lexicographers and raises questions of their career structure. I propose to offer an illustration of a possible syllabus at Master's level, and I
shall touch briefly on the difficulties of making a career in lexicography. But first I would like to consider the kind of objections that regularly arise in discussing any attempt to make lexicography into an academic subject.

One is that there is no obvious need for the venture - that lexicography is doing very well on its own, and does not need academic attention. Although there are controversies, and unresolved problems, that is to be expected, and does not normally interfere with the work, which in general is of good quality. Let me repeat that I have only admiration for the high overall standard of lexicography at present, and great admiration for the individuals who by their own personal performance set the standards. It is necessary to establish a case for change.

The basis of the case is that the lack of external standards of evaluation narrows the range of possible work done as lexicography, causes it to be introspective and conservative. Its security lies essentially in repeating successful practice, and it is highly resistant to innovation, experiment or even discussion outside the small group of established practitioners. In the context of the furious advance of relevant technology, this must be regretted. A professional group which resists outside interference is always in danger of narrowing down its range of expertise, and reducing its flexibility. The existence of high, self-maintained standards is no guarantee of adaptability and relevance in the future.

Another objection that is frequently raised is that the only proper way to learn lexicography is to do it. Training is and should be on the job. That is an important half-truth, because there are elements of experience that probably cannot be acquired in any other way; furthermore, the practice of lexicography obliges one to assemble and co-ordinate all the factors that affect composition, and there is no substitute there for reality.

But there are also undesirable and irrelevant features in any particular instance of lexicography which suggest that a balanced training should include substantial periods off the job. Each job is narrowly defined within lexicography as a whole; for most people the job starts when routines have been worked out and tested, so there is little room for speculation and experiment. The absence of an opportunity for detached study means that there is no principled context within which lexicography takes place. The passing on of experience from one lexicographer to another is also restricted to the circumstances of the job in hand. A thorough training is not likely to be achieved in the rigid framework of most lexicography projects.

There is also an objection to the notion of generality in lexicography. Each project is special, and has a range of needs needing special treatment. With such variety, there is very little to be said that holds good in all circumstances. That may be so, but it does not stop lexicographers from enunciating general principles, and it does not differentiate lexicography from any other applied academic study.

Perhaps the most insidious objection is that provision of
recognized training is not appropriate to such a small and hazardous profession as lexicography. This is a matter which I hope the conference will bear in mind long after we have dispersed. Most lexicography is done on short-term contract, and most practitioners are insecure in their employment. This inhibits the establishment of courses, and makes it difficult for people to finance themselves through training. In turn the absence of accepted qualifications denies prestige and status to the discipline.

Let me quote a parallel case. Some twenty-five years ago there was very little provision of professional training in the teaching of English language abroad. There was some good teaching and some not so good, and it was largely a matter of chance. Then a variety of institutions began to establish qualifications—diplomas and degrees in the universities, certificates from RSA and some of the major private language schools. Professional associations began to be formed in order to define and defend standards. The DES and now the British Council offer recognition to efficient institutions.

The benefit of these changes to the profession has been enormous. Tens, then hundreds, then thousands of people began thinking about what they were doing, resisted attempts to exploit them, took pride in the developing structure of their profession. This process is still in full swing, and the upper reaches of very advanced skills in leadership and management are still not nearly well enough articulated. But I think that few language teachers, or their employers or their students, would now wish to return to the happy-go-lucky days of the 1950s.

I believe that it is both necessary and timely for lexicography to contrive a similar transformation, and the birth of EURALEX at this Conference is a step forward.

I return to the delineation of lexicography as an academic subject. Let me place it initially at the intersection of Linguistics and Information Technology.

![Diagram](image)

It is clearly an applied science or craft, rather than a pure one. That is to say, it relies for a theoretical framework on external disciplines. I know this is a contentious point and that this paper is not the proper forum for its debate, but the shape proposed for lexicography as an academic subject depends on the attitude taken to this issue. There is, for example, no subject heading 'Lexicography theory' in my syllabus because I have nothing to put there; on the other hand there is substantial
input from IT and LINGUISTICS because I believe that the relevant theory is to be found in these areas or via these areas.

In Fig. 1 above, EXPERIENCE refers to the compilation of language reference material. In an earlier version this was labelled PRACTICE and caused confusion because it suggested that the actual work of the lexicographer, and the insights and expertise acquired on the job, were excluded from lexicography as a subject of study. Within lexicography itself there is a gradation between principles and practice (cf. Hartmann et al. 1983), and even this revised diagram does not adequately make the point that part of any academic training will necessarily include substantial experience.

The problem lies in the likely double-meaning of X, where X is an academic subject. It can be both the name for the central area of study, and also of the syllabus as a whole. So a course entitled LANGUAGE TEACHING may include elements of Educational Theory, Psychology, Linguistics, etc., and Language Teaching may recur in the centre of the syllabus. Hence the more complicated diagram of Fig. 2.

Fig. 2

![Diagram of LEXICOGRAPHY as an ACADEMIC SUBJECT]

To anyone who thinks I am making heavy weather of this, I can only reply from experience that it seems necessary to keep on stressing:

(a) that the study of lexicography includes the practice of it;
(b) that there is no prospect of a theory of lexicography.²

Towards a syllabus

There are, then, four starting points for the study of lexicography:

(1) Information Technology;
(2) Linguistics;
(3) Lexicography;
(4) the Experience of compiling language reference material.

Information Technology is itself an applied science, multifarious and deriving from several theories of, e.g., mathematics, physics and psychology. It has links already with lexicography practice, through computer typesetting, graphics, etc., and it should be stressed that the present proposals go well beyond this established connection. Lexicography has been using computers for the assembly of dictionary text for many years, and there is a risk of confusion between this and the impact, present and future, of information technology upon lexicography.

We should also recognize the separate identity of a range of applications of Information Technology and Linguistics in the subject area of Computational Linguistics. Possibly - depending on how computational linguistics settles down as a new discipline - lexicography may come to be regarded as a special variety of computational linguistics. At present, I shall revise our diagram showing it as a separate but very influential subject, and return to it later on.

**Fig. 3**

LEXICOGRAPHY as an ACADEMIC SUBJECT

INFORMATION TECHNOLOGY → COMPUTATIONAL LINGUISTICS ← GENERAL LINGUISTICS

LEXICOGRAPHY

EXPERIENCE

This gives us five, and not four, major syllabus points. I would now like to draft a syllabus for a substantial course in
lexicography which should provide balanced and appropriate training. To put it in context, here is an outline specification for a one-year Masters' course in lexicography.

For each of the five syllabus points, there would be the following objectives:

(i) to appreciate the place of this syllabus point in relation to the others;
(ii) to understand its basic tenets or principles, or, where these are not articulated, to formulate them;
(iii) to appreciate the background and historical development of the subject area, with particular attention to varieties of approach, major figures and monuments;
(iv) to evaluate current trends; in developing areas like Computational Linguistics there will be little distinction between this objective and actually participating in the development process.

These objectives will roughly define the course content. The skill side of lexicography leads to two further objectives:

(v) to learn how to carry out typical activities in the discipline. We could break this down into such matters as
- accurate and sensitive following of specifications;
- estimation of resources required for a project;
- reconciliation of conflicting priorities;
- formulation and generalization of issues raised by practice;
- creation and revision of guidelines for specified jobs.

(vi) To design and produce a significant contribution to the field.

This gives us a total of 30 objectives, plus five projects, one in each of the subject areas. Written out as syllabus headings, we get five sections:

(A) INFORMATION TECHNOLOGY (IT)

(i) IT in relation to language and Lexicography;
(ii) principles of IT;
(iii) historical development;
(iv) current trends;
(v) IT skills relevant to lexicography, e.g. data-base management;
(vi) a project in IT.

(B) GENERAL LINGUISTICS (GL)

(i) GL in relation to IT and Lexicography;
(ii) relevant linguistic theory;
(iii) historical development;
(iv) current trends;
(v) linguistic analysis of texts with reference to lexigraphic compilation;
(vi) a practical project in linguistic analysis.

(C) COMPUTATIONAL LINGUISTICS (CL)

(i) CL in relation to GL, IT and Lexicography;
(ii) principles of CL;
(iii) background and development;
(iv) current work;
(v) practical CL skills;
(vi) a project in CL.

(D) LEXICOGRAPHY

(i) Lexicography in relation to GL, CL and IT;
(ii) formulation of principles of lexicography;
(iii) establishment of Lexicography as an academic subject;
(iv) survey of current work (in the development of the subject);
(v) study of lexicographical skills;
(vi) a project in lexicography.

(E) LEXICOGRAPHICAL EXPERIENCE

(i) the place of experience in relation to theory, principles and practice;
(ii) the issues raised by experience;
(iii) the history of dictionary compilation;
(iv) survey of current work in lexicographic compilation;
(v) guided compilation
(vi) a compilation project.

Commentary

I shall now pick out and comment on a few of these headings, to flesh out the syllabus and give some examples.

The most obscure area, of course, is Lexicography itself (Section D). That is because it has not been properly separated from the process of compilation, and only the implementation of a syllabus such as this one would allow the emergence of Lexicography as an academic subject (cf. the serial publications Dictionaries, Lexicographica and Multilingua).

In the relations between IT and Lexicography (Section A1), I would expect a serious study of The Book and The Reference Book: how remarkable they are as IT inventions, while being based on characteristics of language such as linearity and alphabeticality. Thus they would be placed in context as selections from the vast potential repertoire of IT. When considerations from experience are then encountered (in Section Eii), the whole matter of how to code information for a particular user can be discussed in the flexible context of IT. In more and more cases we can expect that a book will not be the answer. Questions will be framed to stimulate research into the behaviour and preferences of users, so that new retrieval systems can be designed and tried out.

Under Sections Aiii and Aiv there is an important need for
classification of the relevant software - programming languages, packages, data-base management systems - all with respect to the needs and priorities of Lexicography. There is a surge of interest in these facilities at the present time, yet not very much precision of information, and some fairly loose use of terminology (cf. Hockey 1980).

Within Linguistics (Section B), I would not expect a concentration on Semantics, but rather a broad survey of current models and analytic techniques. The pursuit of word-meaning has been central in lexicography since it began, and the standard word-by-word treatment reinforces its centrality (cf. Quemada 1972). However, new techniques and new requirements make it necessary to think of lexicography in the broader sense of the compilation of reference material about language. The skill and care taken in the compilation of dictionaries could with profit be applied to many other types of information not traditionally found in dictionaries. The retrieval, and the accessibility, of linguistic information is going to be a major object of study and experiment. The amount and quality of information is growing rapidly, and lexicography faces similar retrieval problems to many other parts of our complex modern life.

I would expect that (under Section Bii and Biv) there would be a concentration on the newer disciplines of Text linguistics and Pragmatics, which are concerned with language in use (cf. Kaplan et al. 1983). In this area lexicography has always been a leader, because it comes to grips with usage in its daily business. But it has not devised sufficient formalism to influence linguistics.

When relating Linguistics and Lexicography (Sections Bi and Di), this is one of the points that will surely be brought out. Until it is recognized as an academic subject, Lexicography can be conveniently ignored by practitioners of more theoretical subjects; but when it is seen as an application of Linguistics, this should lead to profound changes in Linguistics, as any good application should. The evidence which is accumulating from usage is being eagerly snapped up by lexicographers, and should force Linguistics to broaden the base of its concerns.

The syllabus heading which will provide the greatest interest, after Lexicography itself, is Computational Linguistics (Section C). It is the key to the development of linguistic work in general, and the primary stimulus to establishing Lexicography as an academic subject.

It has many facets, but at the present time one overshadows the rest - the ability of computers to organize abundant textual evidence. The storage and scanning of very long texts provides a close-to-objective basis on which language patterns can be observed. The results of analysis can be held in a data-base, and the hypotheses can be tested against this resource. The uneasy, ill-fitting abstractions of the linguists who worked with just their intuitions and a few scraps of evidence will have an opportunity to be reformulated, retaining their positive insights. And perhaps some startling new concepts will emerge from the interaction between Computational Linguistics and
Lexicography.

Conclusion

Lexicography is one of the places where language study meets the general public: there are few enough of these, and most of the others do not have the same high standards as the best of lexicography. The lack of contact between lexicography and the rest of language study has been bad for both, and the movement to establish lexicography as an academic subject will have the effect of making essential connections between lexicography and its contributory and contingent disciplines.

One of its most important results should be to improve the career structure and prospects of practising lexicographers. The provision of a recognized high standard of training provides one point on a professional map which can be referred to in job recruitment and negotiation for salaries and conditions of employment. It can enhance the prestige of publications, and dictionaries can be noble monuments. Lexicography at the present time has a low professional status that contrasts sharply with the quality of much of the work and the value and importance of it as seems to be recognized by society. There is said to be a lot of hack-work and there will always be a demand for cheap and substandard compilations, but who calls it hack-work? Those who do it because they have no alternative, and who label it disparagingly by way of apology. Those who fail, for one reason or another, to insist on their personal standards in a job. Those who refuse to do it because they see no way of maintaining their standards in it. The emergence of Lexicography as an academic subject will provide a secure basis for detached evaluation of the work of all lexicographers.

Notes

1 On lexicographic conventions, cf. the paper by Ilson in Part I of this volume.

2 For a complementary view on the component parts of such a theory, cf. the following paper by Wiegand.

3 Some of these are hinted at in the paper by Knowles in Part II of this volume.

References