The Role of Terminology Work in Current Translation Practice

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The Role of Terminology Work in Current Translation Practice

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Preface

The idea of living in a 'global village' has been on everybody's lips recently; it is certainly an appealing concept. Combined with that of 'unity in diversity', it stresses the relevance of the various cultures and languages in the world community and the role of the translator as an indispensable mediator. However, the problem is that despite the large number of translators communication between the villagers is often far from smooth and if this situation is not remedied, the end of the story might be a global Tower of Babel. We hold the view that in many cases the problems of communication can be put down to a lack of terminological knowledge. While terminology is an integral part of translation, translation-oriented terminology work is neglected by translators and misunderstood by most other parties to the communication process. Although the need for it is increasingly recognized, differences remain as to the way in which terminology work should be organized and carried out.

These differences result not least from the heterogeneous nature of translation practice. When talking about terminology work, one has to bear in mind that translators work under extremely diverse (if not adverse) conditions depending on their respective working environments. Consequently, terminology work has to be user-oriented. In addition, it has to be seen against the background of the entire translation process comprising work routines such as job mananagement, interaction with the client and, above all, time management. This is why in the present work we have attempted to adopt a practical user-oriented approach, firstly by analyzing the macroprocesses of translators at work in different working environments and secondly by relating the way in which terminology work is carried out to these findings. The aim was to assess the differences in working conditions and to determine the needs translators have with respect to terminology management facilities.

In our efforts to gain insights into work routines, organizational issues and terminology management with respect to various prototypical working environments, we conducted interviews with representatives of translation departments in industry and the European Community as well as with freelance translators. Our interviewees comprise three translators from a big traditional company and two translators from a young, up-and-coming company; three translators and one terminologist from the Commission of the European Community as well as one translator and one terminologist from the

European Parliament; two freelancers working on their own and one associated with three other freelancers. Moreover, students working in three different translation agencies for a few months handed in reports on their working experience. All the quotations appearing in this report come from these interviews.

1

Introduction to the working environments of translators

During the past twelve months our team undertook to examine the macroprocesses of translators at work in different working environments. To this end, we carried out case studies among the following four groups of translators:

- Freelance translators
- Translators employed in translation agencies
- In-house translators in the translation departments or language services of industrial companies
- In-house translators in the translation departments or language services of supranational organizations.

Our attention focused on the following aspects:

- general working conditions
- macroprocesses, i.e. organization and working routines
- terminology-related problems
- tools to support the translation process.

From the veryy beginning, it became clear that in most cases translators work under adverse conditions. This refers not merely to the extreme pressure of time under which translators usually work and which affects the quality of translations and, inevitably, their scope for terminology management. More interestingly, we have found two conflicting factors that are indicative of their situation: one is the misperception of the translator's role, in particular the fact that the translator's contribution to and know-how in terminology work is underestimated; as a result, translators generally have to content themselves with minimum equipment. The other concerns the very nature of translation: as a communicative activity it is "devoted to the cutting edge" and thus stands in contrast with terminology work, i.e. the elaboration, updating and verification of terminological information as a long-term project.

Before we turn to discuss these findings and their implications in more detail, we have to take a look at the working environments of the four groups of translators.

1.1 Freelance translators

Their trademark being self-reliance, freelancers are fully responsible for all translational aspects including organization and business management. To make matters more difficult, they have to cater for a great number of different clients and draw their jobs from a wide range of different, often extremely specialized domains. Another handicap is that, for technical reasons or on account of the way they organize themselves, they tend to maintain a less close contact with their clients than do translation agencies or in-house translators. Co-operation is often restricted to the exchange of source text, target text and money. As a result, there is a lack of opportunity to call back with queries regarding terminological or content-related clarification. More than any other group, freelancers are often not provided with the necessary background information concerning the situational context or client-specific terminology. At the same time, they are mostly given tight time limits. Documents pour in and may even have to be translated over the weekend, when many sources of information are inaccessible.

Consequently, it is easy to understand why freelance translators feel that they have no time at all for terminology management. The lack of opportunity for acquisition and verification of terminology leaves a sense of uncertainty and a high degree of dissatisfaction, especially among this group of translators.

1.2 Agency translators

In translation agencies, there has been a shift of emphasis away from merely translating texts to comprehensive, large-scale translation projects, which involve integrated (multilingual) document production and require professional project management. For such a full service (from initial concept to final published product) to be offered, a comparatively high proportion of manpower needs to be allocated to job management activities such as acquisition, marketing and accounting, but also to desktop publishing and printing, with the amount of organizational work clearly exceeding that of freelance translators. Usually, terminologies are compiled in a somewhat more systematic way only in cases where client-specific glossaries are commissioned together with the translation. However, terminology work is not as yet recognized as a valuable service; it is taken for granted by the client and is provided by the agency as an extra in order to woo clients; it goes thus (almost) entirely unpaid, since translations are not allowed to become more expensive. As a result, only few resources are allocated to terminology work and it is rarely undertaken thoroughly, either for the client or with a view to building up an agency's own stock of terminology.

At the same time, there is growing interaction between agencies and clients. New forms of fruitful co-operation are thus emerging, which may have positive effects on the working conditions in agencies in the long run. For the time being, however, agency translators do not have an easy job, although they have the clear advantage that client feedback is increasingly available. Due to the tough competition on the translation market and the priority set on profitability, this group of translators is confronted with similar problems to freelance translators. In fact, there is a growing tendency in agencies to pass on jobs to external freelance translators and to employ fewer full-time translators.

1.3 In-house translators in industry

The same tendency to rely increasingly on external translators can be found in companies. This goes hand in hand with the transformation of simple in-house translation departments into so-called profitcentres, which work under similiar conditions to translation agencies. In the course of this development, considerations of cost-effectiveness have resulted in the reduction of the number of in-house translators, as these require regular payment inclusive of social security benefits and have to be paid even in periods during which there are hardly any translations to be done. Former translation departments are thus replaced by in-house language services, where the translators' tasks have come to be newly defined:

* only confidential, extremely short and very urgent texts are translated in-house;
* the emphasis is shifted to translation management, i.e. the coordination and supervision of the translations done by external translators;
* the activity of in-house translators increasingly comprises the provision of general language services, e.g. the compilation of bi- or multilingual company-specific terminology to support technical communication in all company departments.

There is thus growing recognition of the importance of terminology work and its relevance for the company. Terminologies are compiled and elaborated by in-house translators and disseminated for in-house translations, as well as being sent to external translators and all other company departments. In some cases, the aim is to create a corporate language and to define terminological standards in close co-operation with the experts possessed of the relevant know-how and terminological knowledge. It is interesting to see how the tasks traditionally divided quite strictly between the translator and the terminologist are now merged into the new activity involving the provision of multilingual services.

However, this is a new and very recent development, applying mostly to young, small and up-and-coming companies, e.g. in the information technology sector. In most companies, especially in large ones, the traditional translation department still prevails, with translators being tucked away in the solitude of their offices, complaining about a lack of interaction with company experts, a lack of opportunity for further training with respect to company matters, and the non-availability of modern equipment. Although terminology work has always played a more important part in companies than in freelance or agency offices - the translators here being, so to speak, under the same roof as their clients - translators in industry are given little or no opportunity to influence terminological matters. This is because their role in terminology management is generally not understood, terminology work being attributed to the terminologist rather than to the translator. At the same time, the position of terminologist does not exist in most companies. The translator is thus viewed as a necessary evil.

1.4 In-house translators in supranational institutions

Given the multi-cultural nature of supranational institutions, the translator is held in much higher esteem in such organizations. Due to the binding character of certain documents and the importance of multilingual communication, special in-house terminology services are provided, with terminologists who set up a termbank, compile glossaries and assist translators in the clarification of terminological problems. While in the case of all other groups of translators the quality of translations and the scope for terminology management suffer from constant efforts to save money, funds are here expressly allocated to both activities.

On the whole, it must be stated that in-house translators in supranational institutions enjoy more favourable conditions, including better equipment and facilities. However, the situation is far from ideal. The introduction of PCs to give translators better text processing facilities and on-line access to terminology and document databases has only just got under way. While senior EC translators who have worked with dictaphones for decades insist on this way of text production, younger translators admit that it is difficult to conduct proper text managment without computer assistance. They feel that translation difficulties cannot be dealt with "on-line" but have to be treated in the context of the overall text, which necessitates the possibility of moving freely between the beginning and end of the text.

What is more, the general translation strategy of improvising is still prevalent - a factor which also applies to the handling of terminology. Indeed, interaction between translators and terminologists is far from satisfactory. Translators make little use of the services provided by the terminology department. At the same time, the terminology work of the translators is mostly lost rather than grafted onto the stock of developing terminology. As a result, the contribution the two make to each other's work is somewhat limited. Although some possible remedies have been discussed within the EC, an effective solution to the problem has yet to be found. It is therefore interesting to see that even where special attention is paid to terminology work and management, it does not answer the translator's real needs. This leads us again to the paradoxical situation whereby terminology is part and parcel of translation, and yet still regarded as a poor relation to it.

2

General description of translation practice

In the wake of increasing economic internationalization and interdependence, translation has come to be more a commercial activity than a creative one. It is determined by the dictate of profitability on the part of the (more or less) organized body of translators and by that of stringent deadlines on the part of the clients. **Translation management** is therefore no longer a matter of quality assurance but increasingly of **time management**. As internationally operating companies aim at releasing new products on all markets simultaneously and as product liability laws demand the delivery of precise documentation alongside the product, the priority is to demonstrate deadline reliability. By the same token, translation is in many cases no longer the conversion of text into a target language. It is an increasingly comprehensive project requiring a number of peripheral working routines, which can often play a central role as the demands on formal aspects, layout and administration grow in importance. This chapter deals first with organizational aspects before enumerating and illustrating the various working routines in more detail.

2.1 Organization

Our case studies have shown that the four working environments of translators as illustrated above are organized differently depending on the overall objective and the target group of the translation effort.

2.1.1 Personnel structures

As far as personnel is concerned, **freelance translators** stand out against the other groups under consideration in that they usually work on a one-(wo)man basis. Since they are their own masters and only one person is working on a given piece of text, their advantage is that there is no need for job allocation and that consistency (to be discussed in chap. 3.3) is easier to achieve. However, when it comes to translating, say, a whole documentation, freelancers are clearly at a disadvantage, simply because they do not have the capacity to take on larger projects. This is why they sometimes combine forces with others in order to form a "translation agency", which usually means sharing an office and passing on or even splitting jobs, while still working independently in a truly freelance way.

It goes without saying that by comparison with freelance translators, **translation agencies** have of necessity a much more comprehensive approach to the overall translation process, especially to job management. Apart from translators and possibly revisers there is a high proportion of people concerned with purely organizational matters:

* The *managing director* is usually responsible for PR and acquisition.
* For most translation projects there is a *project manager*, who oversees the range of steps comprising
  - talks with the clients for the specification of their requirements and needs (cf. chap. 2.3.1),
  - the acquisition and compilation of terminology,
  - the selection of the translator or team of translators,
  - the supervision of the translation process, including close interaction with the client for the clarification of problems to
  - post-editing measures.
* Agencies with separate departments for the various languages also have a *translation manager* for each department, who is responsible for the preliminary analysis of the text as well as for the allocation of jobs and the coordination of revision.
* *DTP specialists* are in charge of layout and printing.
* *Secretaries* and *accoutants* deal with the administrative details.

However, translation agencies, just like any other company, have to strike a balance between profitability and the number of people employed. Given financial constraints and the constant pressure to save, the various responsibilities of job management are frequently assumed by one person. Even the number of full-time translators tends to be kept to a relatively low level. Instead of employing a large number of translators on a regular basis, agencies rather pass on jobs to freelance translators or give short-term employment to translators when their own resources are overstretched. There are even agencies which do not employ any translators at all, but merely act as an intermediary between clients and freelance translators.

With respect to **industrial translators**, our case studies revealed a wide variety of personnel structures depending on the size of the company and the need for translations. In some firms there is only a small translation department with about two to four translators covering the languages required, in others the translation department is divided into several language sections, in others yet the translation department may even constitute a subgroup in the wider framework of a whole documentation and information department. Naturally, the size of the department has a bearing on the degree of autonomy that the translators enjoy; in small companies there is often no definite head of department, which means that the translators are largely responsible for their own work, whereas the translation departments of large companies are reminiscent of the hierarchical structure typical of the language services of supranational organizations.

Of the groups discussed so far, the language services of **supranational organizations** definitely have the highest number of (full-time) employees. These are represented in a hierarchical system, whereby individual tasks are clearly assigned. In the European Community, the various institutions have independent language services for different purposes. For instance, there is a separate department concerned solely with the translation of speeches made by MEPs. The translation services of the Parliament and of the Commission consist of one unit per language, or two sub-units for the major languages. These units comprise translators equipped with either PCs or dictaphones, as well as secretaries, whose job it is to transcribe the taped translations. In Parliament the head of unit is usually an EC official, while a senior translator is responsible for the allocation of texts, for further training measures and for documentation within the language unit. In the Commission the head of unit is usually a translator. As s/he cannot supervise each individual translation, the units organize themselves in a rather autonomous way.

Considered in the aggregate, the most complex personnel structures can be found in translation agencies with their paraphernalia of organizational activities. With respect to in-house services of big companies and supranational organizations, one of the most striking features in terms of personnel is their hierarchical structure, whereas small in-house services and freelance translators generally work rather autonomously.

2.1.2 Clients and text types

In the analysis of clients and text types, it seems appropriate to look at freelance translators and agencies on the one hand and in-house services on the other. What **freelancers and agencies** have in common is that they both have to satisfy the needs of a multitude of clients and consequently to deal with a great variety of text types. This makes it extremely difficult for freelancers above all to specialize in particular domains, unless they work for certain clients on a regular basis. However, this is the exception rather than the rule; their spectrum of clients ranges from translation agencies via (overstretched) in-house services to private clients. In the same way, the texts they have to translate might include manuals as well as the much-quoted love letter. Agencies at least try to concentrate on a limited number of domains. This means that although there is still a great variety of text types (manuals, scientific reports, contracts, brochures etc.), they deal with texts which are similar in content. Their customers are first and foremost firms without a language service, companies whose own translation departments cannot cope with the flood of incoming texts, or small and medium-sized businesses trying to penetrate foreign markets. At this point it becomes clear how things fit together: companies turn to agencies and freelancers, and agencies to freelancers, whenever their respective resources are overstretched.

The common feature of the in-house services of **companies and supranational organizations** is that they basically work for only one client. This means that the texts to be translated often refer to the same domain(s) and that certain text types recur time and again. The translation service of the Commission, for instance, works for the Directorates-General (DGs) in charge of the EC's various fields of activity. Accordingly, the the texts may refer to areas such as telecommunications, information technology, loans and investments etc. Typical text types are directives and regulations. Likewise, in-house services of big companies mainly translate texts restricted to a particular field of activity. From the point of view of the translators, this has the following advantages:

* They have the opportunity to specialize and to acquire increasing domain-knowledge.
* There is scope and even a need for terminology work, so that in-house translators try to invest spare time in the compilation and elaboration of terminology or even of a whole termbank.

Another asset in the international context is the fact that the people who commission translations are generally aware of the problems arising in international communication and therefore more willing to answer questions on the part of translators.

2.1.3 Equipment

With regard to equipment, our case studies revealed enormous differences. Of the four groups under consideration, the best equipment can certainly be found among translators of **supranational organizations**. As a rule, they are provided with ample facilities for the acquisition of information. These include libraries and archives, documentation databases and termbanks, which are often part of special terminology departments. As pointed out in Chap. 1, however, the terminological data provided are often of limited use, since there is insufficient co-operation between translators and terminologists (cf. chap. 3.4.1).

The means and equipment granted to **industrial translators** differ greatly depending on the importance accorded to the translation department by the management. In a few cases in our survey, translators had to bring their own books and had no way of applying for further material. Usually, however, in-house services are granted access to the hardware and software used in the company. But when it comes to buying additional software, it often costs translators all their powers of persuasiveness to make the management understand that they, too, need specific tools. As a rule, funds are made available for the translation department on condition that they serve other departments as well.

As mentioned before, **translation agencies** have a relatively high number of employees and try to concentrate on a limited number of domains. Conceivably, the domain knowledge built up in the course of time could be stored and retrieved as the need arises, provided that there are facilities for that purpose. Contrary to what one would expect, however, the professional status of agencies does not necessarily guarantee their possessing professional terminology tools. Agency translators often work with makeshift equipment, bringing along their own books, as the material provided is rarely up-to-date. Sufficient facilities are only provided in terms of text processing programmes; in this respect agencies use a variety of systems to satisfy their clients' needs.

Obviously, this last point also applies to **freelance translators**. More than any of the other groups, however, they have to consider the costs of equipment in order not to overtax their financial means. Given the fact that they have to cope with the greatest variety of domains and text types, it is an irony that they do not have the aids that they need, and which they require more than any of the groups under discussion. On the whole, freelance translators are left with the strategy of "muddling through".

2.2 Translation processes

Our case studies revealed a general pattern of translation-related processes. As a model it applies to all groups of translators, although each group places its own particular stress on some steps and neglects others due to the way it is organized. At the same time, each individual case within a group varies in its actual implementation of the routines outlined in the model.

The model shows three types of management involved in translation projects: job management, text management and terminology management.

Job management comprises all activities relating to the organization and technical implementation of a project, starting with the acquisition of a job, the specification of client requirements, the allocation to a language department or to selected translators, the coordination of a team of translators, the interaction with the client during the translation process, the supervision of the completion of the translation including post-editing, layout and printing, its final delivery to the client, invoicing and accounting, the cultivation of customer contacts and all other public relations efforts and, last but not least, equipment matters.

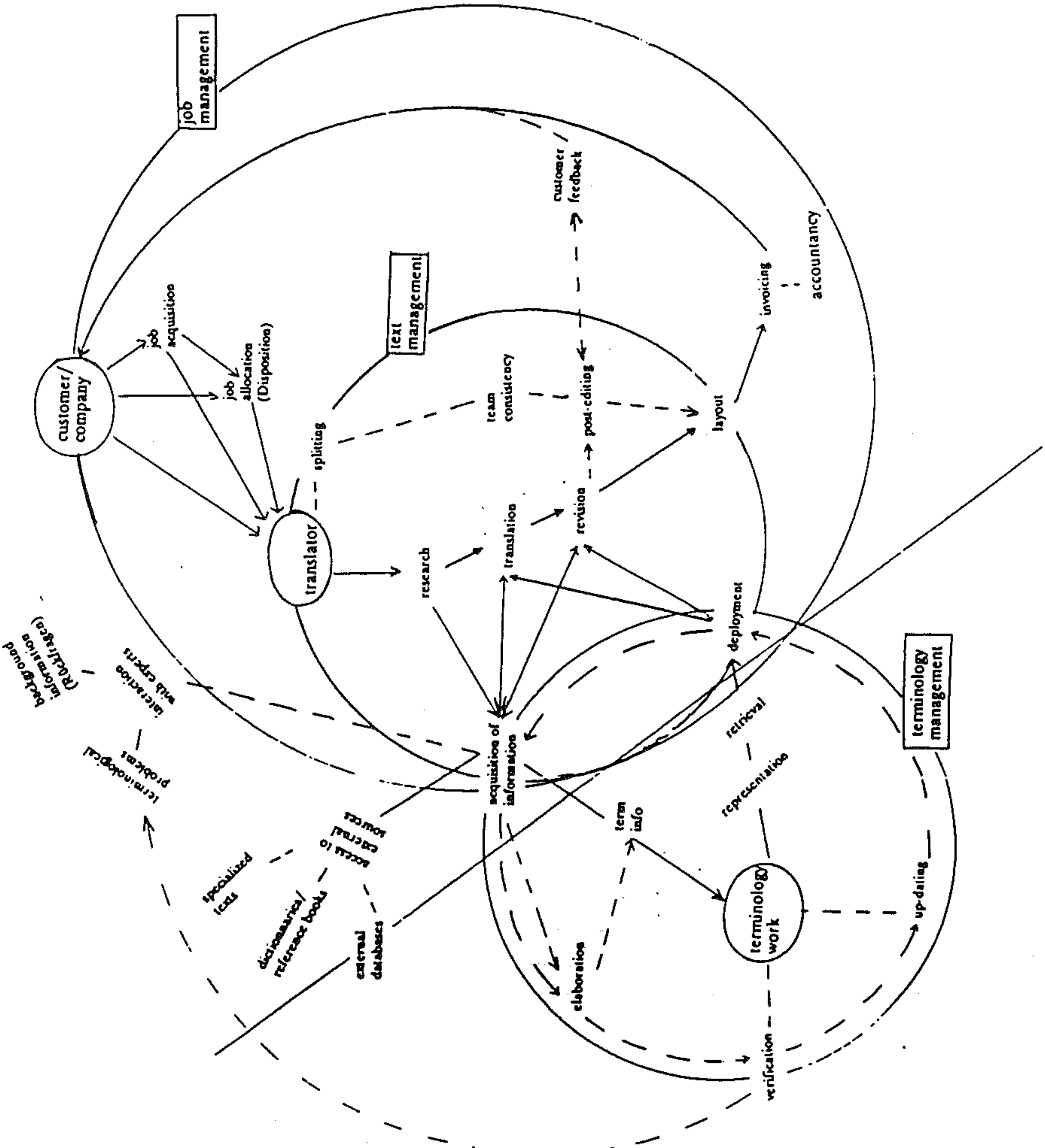
A major handicap for translators is that they have to work to the usually stringent deadlines set by the client's executive management. As such officials are not familiar with the translation process and are guided by marketing considerations, the translation effort is often underestimated. The key to successful job management is therefore not only to manage time efficiently at each stage of the translation, but also to ensure that no time is wasted in the negotiations of the pre-translation phase and that the job reaches the translator's desk as quickly as possible.

Text management concerns the actual work with the text, the conversion of a source text into a target text, the use and deployment of terminology and thus translation pure.

Terminology management comprises the acquisition, representation, elaboration, verification and updating of terminological information.

The borders are of course fluid. Terminology management links up with job management, for instance, when talks with the client are arranged to clarify translational problems. Textual management ties in with job management when a job is split and consistency checks have to be coordinated. In terms of terminology management, textual management is intimately connected with the acquisition and retrieval of terminological information.

The following scheme and table present an overview of the various working routines associated with the three management areas, before they are discussed in more detail in chapter 2.3.


job management
text management
terminology management
customer/ company
job acquisition
job allocation (Disposition)
translator
splitting
team consistency
post-editing
layout
invoicing
accountancy
customer feedback
research
translation
revision
deployment
acquisition of information
term info
retrieval
representation
terminology work
up-dating
elaboration
verification
interaction with experts
background information (Rückfragen)
terminological problems
access to external sources
specialized texts
dictionaries/ reference books
external databases

JOB MANAGEMENT	TEXT MANAGEMENT	TERMINOLOGY MANAGEMENT
JOB ACQUISIITON PR, price negotiations (crucial for agencies) **CLIENT BRIEF** Specification of requirements and deadlines		
JOB ALLOCATION Selection of translators according to languages and domains, deadline and text	**RESEARCH** **TEXT ANALYSIS** Characterization of text Identification of main terminological problems Comparison with previous translations and parallel texts	**ACQUISITION OF INFORMATION** Recourse to existing terminology Search in external sources Compilation of preliminary glossary
TRANSLATOR BRIEF Instructions		
INTERACTION WITH CLIENTS Queries for clarification (less available for freelancers)	**TRANSLATION** **DEPLOYMENT** of information acquired in research phase **FURTHER ANALYSIS** of transfer problems	**RETRIEVAL** from termbank **FURTHER ACQUISITION** of information, input to termbank
	REVISION **PROOFREADING** of text by reviser/translator/editor	**COMPILATION** of project-specific glossary
POST-EDITING Proofreading/correction and feedback by client Client's final approval	Modification of text, adjustments Consistency check after splitting **LAYOUT**	**ELABORATION** of terminological information **VERIFICATION** of terminological information in interaction with clients/experts/information sources
PRINTING (+ DELIVERY) **INVOICING** **ACCOUNTING**		**UP-DATING** of termbank, systematic management Merging of glossaries

2.3 Working routines

As pointed out before, there is considerable variation in the importance the individual processes assume in a translation project, depending on the following factors: the general organization of the four different groups of translators, the specific organization of translators within each environment, and the size of the project. The following chapter discusses the most important steps in a translation effort in relation to these group-specific differences.

2.3.1 Job acquisition and client brief

Job acquisition can take the form of a clear PR and marketing effort. It can also be the opposite, i.e. a job can come in unsolicited or by sheer accident. Agencies and profit centres for instance pay much attention to the cultivation of their image and give demonstrations of competence and solvency in the form of colourful brochures or even, for large-scale project acquisition, in the form of an in-house **presentation of services.** Translation departments in companies or large institutions, on the other hand, receive a constant automatic inflow of jobs as they are directly linked to their client and are often even located on the same site. Freelancers, finally, acquire their jobs by writing to potential clients, by hearsay, through colleagues and thus in a somewhat unpredictable way, with contacts multiplying on the basis of one's reputation. Active job acquisition and the reliance on external translators in busy times makes for the fact that agency translators are always under strain, while industrial and institutional in-house translators as well as freelancers oscillate between periods of extreme strain and relative calm. It is in all cases the influx of jobs, and their urgency, which sets the pace of work.

The acquisition phase is also the moment for **price negotiations**, which for obvious reasons applies only to agencies, profit centres and freelance translators. Agency translators have complained that it can take several weeks for these negotiations to be concluded; by the time the translation finally gets to their desk, a narrow deadline is imposed. Freelance translators are often underpaid, especially when they are not in direct contact with their industrial or private client, having been hired by agencies or in-house translation deparments.

This early phase also serves for agreeing with the client on the deadlines, the product (translation, multilingual document, with or without accompanying glossary) and the definition of translational as well as technical requirements (format conversion, specific software tool, telecommunications etc.). It is especially important to clarify whether the client compiles his own glossaries or whether he wants specific terminologies compiled or updated with the translation. **Briefing the client** is often a matter of phone calls and fax exchanges, especially in the case of freelance translators. Agencies also arrange direct meetings between a project manager and the client. Translators in the EC receive instructions together with the source text, specifying the client (Directorate-General), the author (with telephone number) and other useful information. Industrial translators may have personal access to in-house experts and authors or they may be rather isolated from the specialist author of the text, depending on the general atmosphere in a company as well as on the local situation on the premises. In many cases there is no need for in-house translators to be in contact with the person or department responsible, as they often have to deal with recurring company-specific standard texts (e.g. turnkey project bids).

2.3.2 Job allocation and job preparation

Once a job is acquired it needs to be allocated to a translator or to a group of translators, unless it goes straight from a client to a particular translator. In agencies and big companies there is special personnel (*Disposition*) for the **allocation of jobs.** The selection of the appropriate translators involves the **analysis of the text** with regard to the following criteria: Language, domain and client, text length and text characteristics.

Source and target **language** naturally determine the department or the potential translators the text goes to. To ensure competency on the part of the translator, the text **domain** is another factor involved in the selection of the translator. This approach is favoured by many translators as it brings with it a higher degree of reliability and satisfaction. However, urgency has priority; **specialization** is therefore possible only to some degree. Specialization is important when it comes to particular clients and their specific terminologies. Translators tend to have **regular clients**, as clients prefer to rely on the same translators and to benefit from the ensuing specialized knowledge. Difficulties arise when a client-specific job comes in while the translator in question is busy with another job. Such overlaps cannot be prevented even by professionally organized businesses, as jobs pour in and can neither be regulated nor rejected for reasons of customer-allegiance and a highly competitive market.

The **length of the text** in connection with the agreed deadline determines the number of translators needed to carry out the job. In some cases the **splitting** of a text among several translators is required; this, however, makes for consistency problems and calls for a greater revision effort, especially when a job is split between in-house and external translators. The **nature of the text** is another criterion for job allocation. Confidential texts, complicated texts requiring much expert feedback, very short texts and texts for publication are usually translated in-house. Highly repetitive texts are left with a single translator wherever possible, even if they are very long.

The above-mentioned criteria help to find the appropriate translator or team of translators. In agencies and big companies, the project manager, who supervises the project from the first contact with the client to the delivery of the finished product, is also responsible for its allocation to particular in-house and external translators. The fact that he is usually not a translator may turn out to be a disadvantage recognized only by the translators, but not by the executive management. Sometimes the allocation of jobs is a coordinated effort by the project manager and the respective language section's translation manager, who is always a translator. In small companies the translation departments distribute the incoming texts among the colleagues on mutual consultation; translators easily agree on who does which text as there is no competitiveness between them. Freelance translators, on the other hand, demonstrate a strong sense of competitiveness and even rivalry as regards the colleagues with whom they exchange jobs at busy times. In the Commission incoming texts are put into trays according to the unit which sends them, i.e. according to the client and the specific domain. There is one senior translator per domain, with responsibility for overseeing to some degree the allocation, translation and revision of the texts. However, translators "help themselves" in a rather autonomous way according to their specialization and preference. At the same time, urgency has absolute priority over all predilection.

The **preparation of the project** does not necessarily start *after* its allocation to a translator. In the case of large-scale translation projects it even *precedes* the allocation of the text to the translator and is carried out by the project manager, sometimes in collaboration with the translation manager. It is true that translators working on their own sometimes try to do without thorough preparation. The result often is that time-consuming text revisions and modifications may be needed in the post-translation phase. But this certainly does not mean that translators should not be involved in the preparation of large-scale projects; quite to the contrary.

Project preparation involves **text comparison** in order to find previously translated texts of the same kind. Such earlier versions help to avoid double work in the translation effort and terminology search and also ensure the consistent use of terms. The comparison of texts becomes more and more important in view of the large amount of product documentation which is frequently updated from very similar older versions and which is available in machine-readable form. For instance, this applies to the manuals for software updates which have only been slightly altered or improved.

The preparational work also includes an initial research for **customer-specific background information.** In companies and institutions this is easily available. In agencies the project manager has to find out in collaboration with the client to what extent reference material exists, especially parallel texts, product documentation and client-specific glossaries.

2.3.3 Text management and interaction with the client

It is in the text management phase that translation-related difficulties occur. The solution of intricate client-specific problems may necessitate close interaction with the client or author. Frequent communication with the client is therefore not only relevant at the very beginning, when the job is specified, but should be a constant feature throughout the translation process. As mentioned before, the exchange of queries and answers is easier for in-house translators than for freelancers. This can be a major advantage, as calling the technical writer or the specialist department responsible for issuing the text to be translated may be the simplest way of clarifying source text problems. At the same time, it must not be forgotten that this is by no means a panacea and is sometimes of little use, as the client generally has no experience in the multilingual side of the project and is rarely acquainted with translation-specific difficulties and needs. Thus, if the interaction with the client proves unhelpful, the solution of content- and terminology-related problems can be a difficult task for translators and project-managers. A considerable amount of time is usually spent on the terminological research into various sources of information, an activity accompanying the text management process from the beginning till the end.

2.3.4 Terminology work

Terminology work is inextricably linked to translation and accompanies every step in the translation process. Three phases can be differentiated:

(a) Pre-translation terminology work

At the outset **project-related terminology** may be compiled to serve as a basis for the work of the translator or the glossary commissioned by the customer. The first look at the text helps to identify the main problem areas, on the basis of which **terminological information relevant for the text** is researched from a variety of internal and external sources, such as dictionaries, reference books, specialized texts and magazines, public termbanks, existing glossaries, the client etc. However, while such terminology work is generally recognized for large-scale projects, individual translators often skip the entire preparation phase. At times they start translating a text without even reading it beforehand.

(b) In-process terminology work

The **acquisition of terminological information** goes on in the course of producing a text in the target language. For the compilation of key-word glossaries, the key-words are highlighted in the text, translated in their context, extracted and recorded. Close interaction with the client provides for the **verification** of the terms. The glossary is extended and updated, i.e. new terms are included and existing entries revised. However, systematic recording of terminological information is usually only done when a (key-word) glossary has to be compiled for the customer. For their own purposes, most translators tend to note the new and essential items of terminological information, if only on a piece of paper which sooner or later ends up in the drawer, and then try to remember that the information was jotted down somewhere and at some point.

(c) Post-translation terminology work

Ideally, the translation effort is followed by the further **elaboration** of the acquired information and the **updating** of the overall stock of existing terminology by adding the new project-related information. In the process, obsolete and duplicate information should be removed, unverified information validated, and the valid information restructured and represented in an easily retrievable way.

Systematic terminology work and management should go hand in hand with all stages in the translation process. However, all translators interviewed stressed that only an inadequate degree of terminology work is actually carried out. The post-translation work in particular suffers. Most translators quickly lose sight of the terminological problems and information once a translation is completed, as the next one is already waiting on the desk.

Systematic terminology work is therefore hardly ever carried out in the context of translation, but rather as a side- or parallel process. Thus big organizations such as the EC have their own terminology department set up for the compilation of specific terminology and its storage in a termbank. Small modern companies tend to have a language service which is increasingly responsible for the development of a corporate language. In agencies, terminology work may be commissioned by the client in the context of large-scale projects. It is usually worked out in close co-operation with the client, i.e. with its technical writers or revisers. In other cases, the agency sends staff to the client to function there as an in-house translator and terminologist. The terms for commissioned terminology work are usually laid down in a precise contract, more often than not to the disadvantage of the translation agency, i.e. all rights (e.g. intellectual property) are transferred to the client, while the responsibility for liabilities resulting from the translation and the terminology compilation remains with the agency.

2.3.5 Revision and post-editing

The tradition of having a translated text proof-read by another translator or an internal reviser in order to assure its quality is frequently sacrificed due to the perennial lack of time. Freelancers even refrain from having translations into a foreign language revised by a native speaker as technical texts are often so highly specific that a non-expert native speaker would be unable to make any sense of them. In the EC there used to be a hierarchy of *assistant translator -> translator -> reviser -> head of unit*. This hierarchy scarecly exists nowadays. What is more, revision has been virtually abolished and is now left in the hands of each individual translator, unless a translator is not entirely certain and asks for the translation to be proof-read. The exception is junior in-house or external translators, i.e. those who have not been working long enough for the EC to prove their ability. The translations of such newcomers are regularly revised not least as part of their training. As soon as translators have demonstrated sufficient competence, revision stops. Revision is thus generally a matter of spare time, of translators asking for it and heads of units insisting on it. In agencies, proof-reading very much depends on the kind of project. Especially when a document is to be published, clients insist on having the text passed on to them for proof-reading and correction, or even send their own revisers to the agency. If the revision is left to the agency, an "editor", i.e. a translator other than the one who did the translation, revises the text. Particularly in cases where several translators work on a document (splitting), the various translations have to be post-edited in order to remove terminological and other inconsistencies. A "final language proof" by exclusively native speakers (not necessarily translators) is carried out after the desktop publishing phase, as mistakes frequently occur during the process of preparing a text ready for printing.

2.3.6 Layout and printing

Depending on customer demands, translations may increasingly be given the final-to-print form by the translators in co-operation with desktop publishing specialists before they are delivered to the customer. This development applies to agencies, which offer a comprehensive document production service including printing, and goes along with the creation of powerful DTP software, which has gradually replaced the rather time-consuming conventional printing techniques.

2.4 Tools

Before we consider the terminology-related problems and the extent to which they have to do with inadequate support from computer tools, we have to take a quick look at the tools generally available to support the translator's daily working routines as illustrated above.

2.4.1 General equipment

* Computer technology, especially IBM **PCs** and compatibles but also Apple Macintosh together with **laser printers**, has come to replace typewriters, dictaphones and other traditional aids.

* Telecommunication facilities such as **modem and fax** can increasingly be found in all working environments, especially in agency and freelance offices. Allowing for the fast exchange of texts and auxiliary information between translation departments, freelancers and clients, they are systematically replacing the exchange of texts on hard copy or even on diskettes.

* **Networks** have become a widespread form of communication in companies, organizations and agencies. Used properly, LANs ensure systematic terminology management and retrieval with controlled access and serve to distribute texts between translation departments and other offices.

* Comparatively high prices for **scanners** and scanner software together with the prevailing lack of reliability still restrict their use. Where available they may be helpful in the preparation phase to facilitate text comparison and corpus-based terminology research work by converting texts into machine-readable form.

* It appears that so far only EC translators have any opportunity to search for information on **CD-ROM**.

2.4.2 Task-related tools

* Tools for **customer and job administration** as well as for accounting comprise database management systems, text counting and calculation software.

* There is a lack of efficient tools specially designed for **text comparison.** The recently developed translation memories offer some similar routines. However, innovations in this field would be very important, especially for translators who have to deal with daily product documentation updating.

* EC translators have been found to be the only translators with access to databases specially designed for **text management,** i.e. databases from which EC documents can be retrieved.

* The majority of translators work with one or more **text processing** systems such as *MS Word*, *WordPerfect* and increasingly systems running under *MS Windows*. However, in many cases it could be observed that their knowledge is restriced to the basic functions of these systems.

* A variety of systems can be found for **terminology management.** Usually, only in-house departments of international organizations are equipped with a proper termbank and a stock of entries that is regularly maintained. Due to the fact that the organizations took up terminology management at an early stage, when no commercial software was available, somewhat obsolete tailor-made software solutions on Mainframe are still in operation today. The attempt is being made to develop PC versions of these systems. The same goes for in-house services in some companies. The more modern and often smaller companies, by contrast, aware of the relevance of terminology management for the internal communication process, employ commercial or individual software running on PCs, in many cases *MultiTerm*. Finally, there is a third category of companies, which, just like most agencies and freelancers, do not have commercial terminology software at their disposal. Many of them still work with file-card systems or term lists or at best with simple individual termbanks created with *dBASE* or *MS Excel.*

* **Translation memories** have been well received from the beginning. A more widespread use of these tools would facilitate the task of company translators in particular, as they deal with a lot of standardized phrases and formulas.

* Powerful tools for **revision** and consistency checks would be highly appreciated by translators.

* Provided that they are easy to handle, **desktop publishing** software and text editors offering efficient layout routines might considerably extend the potential scope of the translator's activities. Yet, up to now, DTP jobs have often been shifted to non-translators.

As we can see, there is a wide range of computerized tools opening up unprecedented opportunities. Now that the days of rattling typewriters are numbered, translators are expected to acquire additional skills in order to keep up with the latest developments. However, we have found that as far as commercial translation is concerned, almost only text processing and job management have been largely computerized (in the EC the introduction of PCs for translators has only just got under way). Other tools have not yet really found their way into translation practice and if they *have*, they are either only available in a rudimentary form or else not used properly.

3

The terminological dimension of translation practice

Translators complain: "Only 10% of your time goes into actually converting the source text into the target language; a great deal of your energies are devoted to clarifying misprints and errors on the part of the author and to researching terminology." Although this percentage varies from text to text and although translators get to know where they have to look for information, the above statement illustrates two major difficulties: the poor quality of many source texts and the enormous amount of time spent on the acquisition of terminological and domain-specific background information. The inconsistencies and ambiguities typical of many original texts give rise to various problems both in reception and production. What is needed to solve these problems is comprehensive terminology management, i.e. thorough acquisition, elaboration, representation, verification and updating of terminology. To date, however, terminology work has not yet received the attention it deserves.

3.1 The status of terminology work

Terminology work is handicapped in that it is generally not regarded as an integral part of translation but as **a separate entity**. Although the necessity of terminology work for translation is being recognized increasingly not only by translators themselves but also by their clients, its status in the context of translation is far from receiving its due. Its relevance may be recognized in the framework of an institution or company's technical communication and may then lead to the setting up of language services or even terminology departments; in the narrower context of translation, however, it is <u>not</u> seen as a necessary task to be performed and paid for. While translation is still considered a necessary evil, which needs to be kept as cheap as possible, the translator's terminology work is taken for granted and not allowed to add to the account. Glossaries commissioned by a client, for instance, are often thought to be automatically produced as a by-product of translation ("He can jot down the terminology while he's at it, can't he?" - "...da kann er doch nebenbei kurz die Terminologie mitnotieren"). If at all, it is paid on the basis of a simple word count rather than as a comprehensive product.

Another problem is that **copy and intellectual property rights** for terminology have yet to be legally regulated; therefore terminologies are neither sold nor freely disseminated nor generally made accessible. On the contrary, terminologies compiled by agencies, in-house or even freelance translators are kept under lock and key to be used as an important asset in competition. As a result, there is an enormous amount of double work. Each and every translator starts working out yet again the terminology that has already been compiled elsewhere.

The failure to recognize terminology work as an integral part of translation, the reluctance to disclose elaborated terminologies and the general time pressure, under which translators work, thus make for a situation whereby

* translators are not sufficiently equipped for terminology work,
* systematic terminology management is sacrificed to wholesale translating,
* translators are not given enough opportunities to learn about the domain-specific facts,
* the consistent use of terminology is undermined,
* revisions are not always taken seriously.

As a result, translational terminology work is all too often reduced to simply highlighting terms in a text and making a few notes on a slip of paper. Texts and provisional glossaries are then stored in a company-specific file or end up in piles in a drawer ("Terminology work falls by the wayside" - "Terminologiearbeit bleibt auf der Strecke").

In order to understand the problematic nature of terminology in the context of translation practice and the requirements for terminology management and terminological consistency, one has to be aware of the language- and content-related terminological problems inherent in translating texts.

3.2 Term-related problems

Technical communication is a dynamic process. Its vocabulary is characterized by the highly specialized nature and swiftly changing use of terms. In addition, technical texts as pragmatic entities have their own peculiarities. Terms in context behave flexibly rather than staticly. Under these conditions the translator is faced with tricky terminological problems both in the reception of the source text and the production of the target text.

3.2.1 Reception problems

When analysing the source text, the translator often finds it difficult to work out what the author means. It is true that texts are often badly written and sometimes one cannot help suspecting that the author did not write in his native tongue - especially in the context of the European Community. Even when a text is clearly formulated and well-structured, however, there are a number of linguistic phenomena that impede understanding.

A major difficulty is that of **referential synonymy**, which is to say that many facts and objects are referred to by a multitude of *different terms*; often the context does not give a clue as to whether or not these terms actually designate the *same thing*. This phenomenon reflects not only the different perspectives from which authors view a certain state of affairs, but also the various levels of know-how that experts bring to bear on their utterances. Thus, it is by no means uncommon that within one and the same company engineers, sales representatives and workshop staff, for instance, use quite different expressions to refer to a single fact or object. The translator is left to sort out these inconsistencies.

Another problem is that of **polysemy**, i.e. the *same terms* are used to designate *different things* in different domains. To make matters even more complicated, there is also intra-domain polysemy, i.e. the same term is used to refer to different facts within a *single* domain. Translators working in domains they are not familiar with have to be extremely careful when using terms that otherwise are as clear as crystal to them.

Understanding might also be impeded by the increasing number of **neologisms**, which often appear in the form of **compounds**. As a rule, compounds are not difficult to understand as long as the sense relations between their constituent elements are transparent. Difficulties arise due to the short-lived nature of terms, with compounds being a case in point. Increasing specialization in the technical world has brought about a large number of highly sophisticated machines, each of them bristling with particular features. In the beginning, these features are often described by long compounds, which are progressively reduced to concise forms as people get used to them. The translator has to try to keep up with these developments (and the respective target language equivalents).

As the term *language for special purposes* (LSP) suggests, translators are faced with specialized terminology that requires in-depth knowledge of the subject matter in question. However, insurmountable hurdles may be constituted by **overspecialized vocabulary** for which reference material is nowhere to be found (e.g. "page-long descriptions of adhesives for toilet paper" - "seitenlange Memos über Klebstoffe für Toilettenpapier"). Sometimes not even the client knows what is meant and, in the end, the translator may have to resort to rather nonsensical expressions in the target text, e.g. *Überreiter* and *Polyreiter* for *overriders* and *polyriders* respectively. Needless to say that this kind of work is hardly satisfying for the translator.

Finally, **acronyms and abbreviations** are often difficult to understand, since it is not always clear what they stand for. If an abbreviation *is* known, it might still mean something quite different in a particular domain or organization. Also, the language from which the abbreviation is taken must not necessarily correspond to the language of the rest of the text (e.g. an English abbreviation in a German text); obviously, this does not exactly facilitate the translator's process of understanding.

3.2.2 Production problems

Naturally, reception and prodution problems overlap to some degree. The difficulties arising from overspecialized vocabulary and acronyms/abbreviations were treated in the previous section, but they also deserve mention in the context of production. It has already been pointed out that when it comes to translating **overspecialized terms,** translators often have no alternative but to make a guess. For obvious reasons there is no point in asking a native speaker for advice because his or her guess is as good (or as bad) as the translator's. In regard to **acronyms and abbreviations**, translators have to ask themselves whether the same form exists in the target language and if so, if it stands for the same words.

However, there are difficulties that are typical only of the production process. First of all, the translator must know who the translation is for and what puropose it is supposed to serve, for these considerations have a strong impact on the choice of **text type and register**. Should the translation be done for a particular company, they might set great store by their **company-specific terminology** (corporate identity). Moreover, the translator might be expected to make an informed choice with respect to the different regional terms, e.g. British English vs. US or Canadian English.

Major difficulties arise in connection with **lexical gaps in the target language.** Certain things or classifications do not always exist in the same form in the target language, so that the translator has to come up with a paraphrase or an invented equivalent. Alternatively, the word in question could also be adopted from the source language, but then the translator might be up against yet another problem, viz. grammatical questions concerning gender and plural formation, for example. Conversely, the target language may have a **broader denotative scope** than the source language, e.g. in the case of *Regelung* and *Steuerung* where English only has *control*. Here the translator has to make a decision that can often only be taken on the basis of profound background knowledge.

In addition, special language is characterized by numerous **orthographic variants** (especially hyphenated compounds), its own particular **collocations and idomatic phrases** and its **domain-specific expressions**, which may vary for the same substance or object in different domains and require detailed terminological knowledge. **Tautological expressions** (e.g. *Prüfkontrolle*) confront the translator with the difficult decision which part to specify in the target text. Finally, translators have to be familiar with the general LSP conventions typical of their respective working languages.

3.3 Consistency in the use of terminology

Terminology is meant to be precise and unambiguous. Its consistent use is crucial for the smooth running of technical communication. However, the use of terms in technical texts is rarely as consistent as it is supposed to be. In chapter 3.2 it will have become clear that texts are characterized by ambiguities, by a multitude of synonymous expressions, and by the highly specific use of terms. Another factor impeding consistency is the short-lived nature of terminology. Every day, neologisms are created at such a rapid pace that nobody can be a hundred per cent certain about their definitions. Everybody seems to construe them according to their own purposes, which makes it virtually impossible for the translator to discover possible usage rules. Terminological hurdles of this kind counteract the consistent use of terms. The problem becomes apparent in the reception phase and acute in the production phase. In each of the following three translation scenarios, consistency is at stake in a different way: (1) a single translator dealing with a single text, (2) a single translator or several translators dealing with different texts from the same domain and/or client, (3) a group of translators dealing with parts of the same text, i.e. a longer document.

3.3.1 Text consistency

Consistency is aimed at, but it is not an absolute must. Whether consistency is observed, depends on the *kind* of text; there are texts where consistency is essential, e.g. legislative texts or standard company texts; this does not apply to more general texts. Similarly, glossaries may be binding for the translator (e.g. EC glossaries on 'social security'). On the whole, however, translators do not treat EC glossaries as prescriptive, they "are just a useful source of information like any other". The consistent use of terms is not to be confused with efforts aimed at standardization. It is a means of making texts intelligible and more transparent. It is indispensable for multilingual technical communication.

We have found that the inconsistent use of terms by a single translator within a single text is a sure sign of uncertainty. It may be that the source text abounds with referential and quasi-synonyms. Translators who lack profound background knowledge of the subject matter and who are not given the time and the means to acquire it are not in a position to make informed decisions in favour of the consistent use of terminology in the target text. They try to be on the safe side by emulating the text author, i.e. by using a variety of more or less synonymous terms themselves. What is clearly required to achieve consistency within any one text is **detailed terminological and encyclopaedic knowledge.**

3.3.2 Domain consistency

Thorough terminology work is a prerequisite for the consistent use of the terminology of a given domain in a number of texts and over a longer period of time. It is a basic principle for individual translators as well as groups of translators that the terms and expressions once used in a translation have to be reused in any subsequent translation. For that purpose they have to be recorded in a way which makes them easily retrievable. A group of translators working in the same domain needs to have simultaneous access to one and the same terminological information system. The terminology itself has to be carefully processed and maintained. The precondition for consistency in a number of texts from the same domain is therefore proper and **systematic terminology management.**

3.3.3 Group consistency

Generally speaking, it is never desirable to have several translators work on the same text or document. Sometimes, however, stringent deadlines and the urgency or sheer length of some texts make it necessary to split them and allocate the various parts to several translators. Although this involves some positive aspects such as the sharing of responsibility and the possibility of discussing problems in a team, **splitting** has the more obvious disadvantage of making consistency a real problem. It becomes even more pressing when both in-house and external translators are involved. The only possible remedy is to have a superordinate translator in charge of terminology management, or else an editor for the **revision and post-editing** of the various parts once they have been handed in.

3.4 Terminology management

Throughout our case studies, translators repeatedly emphasized that the key to solving the problems related to meaning, text comprehension and consistent usage as illustrated above lies in "reliable" terminological information as well as fast access to and easy retrieval of such knowledge. However, terminology acquisition and management are hampered by the very shortcomings of terminology and technical communication which they are meant to overcome, i.e. by the short-lived nature and the inconsistent and highly specific use of terms. Apparently, the major problems are related to the following areas:

- acquisition: certain pieces of information are extremely difficult to find;
- elaboration and representation: information is rarely presented in a way that takes translators' needs into consideration;
- verification and updating: many sources of information are not up-to-date.

3.4.1 Acquisition

In an attempt to acquire the information necessary to deal with the multiple comprehension, transfer and production problems posed by technical texts, translators tap a host of more or less specific information sources:

* *Specialist texts and magazines*

Specialist texts, articles and magazines including graphics are the favourite reference material of translators, as they provide translationally relevant information in an up-to-date fashion, in context and, most importantly, 'as the expert would put it'. More than most other sources, they give information on meaning and usage and provide an understanding of the term's factual background and the related subject matter. The problem is that they are hard to come by. Easiest access is usually enjoyed by in-house translators in companies or big organizations, as in-house documentation is a major part of their work anyway. In agencies they are available only when provided by the client or in support of large-scale projects. Freelancers simply cannot afford them. If they buy them at all, it is only in the exceptional case of a regular customer.

Specialist texts are even harder to obtain if the target language is a foreign language. Text material is often only available in the native language. A company with close international links may get hold of original texts written in the foreign tongue by a native specialist. However, products which are specific to a country or region are not necessarily documented in other countries, so that only translated documents may exist. On the whole, **parallel texts** are amongst the most valuable sources of information - if they are available. At the same time, it must not be overlooked that sifting parallel texts is a rather time-consuming exercise.

It must be stressed that **reference material** - such as product documentation from companies working in the same field, catalogues from supply firms, operation and user manuals of the objects in question or brochures on the customer company - is indispensable if translators are to get the right picture. For the production of the target text they need to know the wider context, the product history, the target group and other relevant background information. Again, it is the freelance translator who finds it most difficult to come by such information.

* *Dictionaries*

Dictionaries are still a very popular means of terminological acquisition, and one on which all groups of translators heavily rely. It is of course a truism that dictionaries are insufficient as a means of terminological research. Nevertheless they provide clues which translators can exploit in finding a customized or rather 'textomized' solution. The shortcomings of dictionaries can be described as follows:

- They become obsolete very quickly due to the short-lived nature of technical facts and terminology.
- They often simply list terms without any furthei specification or explanation as to the context in which they belong. This makes it difficult for the translator to use them appropriately.
- They fail to be helpful in most cases where company-specific terms are sought.
- There are not enough dictionaries to cover all fields, domains and languages. Certain extremely specialized sub-branches are not covered at all. For other branches there may be both general *and* specialist dictionaries, but these never seem to complement one another, for they tend to neglect transitional link-up areas between (sub-) vocabularies.
- Most dictionaries specialize on nouns. Verbs, prepositions, adjectives and adverbs, although of major importance for the purposes of translation, are hardly ever accounted for.

- Last but not least, dictionaries are expensive and therefore not generally available.

* *Databases*

Databases have the potential and the functions to make up for the shortcomings of dictionaries. However, in practice their potential is not always exploited to the greatest extent.

Termbanks, to start with, have several advantages:

- they can cater for unconventional domains;
- they can be fed with company- or customer-specific terminology;
- they can be updated much more easily than most conventional sources;
- they manage information categories not provided in many other sources (e.g. collocations, usage comments etc.);
- they are capable of making information available to many people in different places at the same time;
- double work can be prevented;
- consistency improves;
- the knowledge of outgoing employees can be retained;
- new employees find it easier to familiarize themselves with the terminology in use.

The problem with **individual termbanks** is that not many people have them. A great number of translators still work without a termbank. If they have one at all, freelancers tend to have a self-made termbank programmed to meet their needs. However, they lack the time to maintain it, so it cannot serve its purpose. Agencies increasingly have termbank software. However, they are not in a position to invest in terminology work or introductory training courses. As a result, the termbank often contains only project-related information in the form of simple glossaries. The potential for efficient representation and navigation is not exploited, as the users have not been instructed and do not know how to handle the database. Companies tend to have a commercial termbank, if it serves as a medium of information for other in-house sections and departments as well. As a result, the information is not processed and stored in a way which most efficiently supports the translation process. EC translators, finally, have (increasingly on-line) access to **centralized databases** (such as EURODICAUTOM). They complain that the information receives far from comprehensive treatment and that it is too cumbersome to use, as its information is not presented in a user-friendly way. The EC also provides **document databases** (e.g. the TRADOC index to publications and magazines in a particular area and SELEX, storing all Community legislation). Although these can be useful in the search for parallel texts, translators do not seem to make much use of them as they are also rather cumbersome. For freelancers and agencies, **external databases** are simply to expensive on account of telephone charges. Another major shortcoming is that they are rarely up-to-date and lag behind the most recent developments.

* *Archives and libraries*

EC translators have in-house libraries and archives. They are reportedly more familiar with libraries and archives than with the document databases. This, however, may have to do with the fact that in the EC, computerization is still in its infancy, so that translators are somewhat uneasy about PCs. They admit that it takes time to find one's way round in archives and libraries, although they are "reasonably systematic and fairly well organized". Freelancers have a problem with the opening hours of public libraries and with the fact that - apart from libraries in university and research institutions - they are not specialized enough. Agency and industrial translators are confined to the means provided in-house (cf. chap. 2.1.3 on equipment) and do not make use of external libraries.

* *Client feedback and first-hand expert information*

A highly valued source of information is the person in charge of the source text to be translated. Contacting the client or the text author may be the most direct way of obtaining information for the clarification of comprehension difficulties, content-related problems, any questions concerning the subject matter as such or even terminological questions; it spares the translator the trouble of consulting other sources of information and often leads to the competent person who best knows the facts and terminology involved. However, this is by no means the rule:

- Agencies which cultivate close contacts with the client in order to obtain the relevant answers may find that their contact person comes from the administrative staff and has no knowledge regarding the technical details of the text.

- Freelance translators find it hard to establish and exploit customer links if the client is not a regular one. This is due to the rather provisional and unorganized way in which they work and the tight time limits imposed upon them. It is not uncommon that a translation has to be finished over the weekend when the author is not available, or even while the author is away on business or on holiday. If the job comes from an agency, the client is only accessible via a third person (the project or agency manager), as agencies are extremely unwilling to disclose the names of their clients. The text-specific intricacies can hardly be solved in this manner. In some cases, freelancers therefore resort to external experts, where possible. It is thus not unusual for a freelancer to phone up the fire brigade when s/he has to translate a text on, say, a protective garment.

- In-house translators in companies may have the advantage of working under the same roof as the client, i.e. the technical writer or specialist department that has issued the text to be translated. In most cases such access to expert know-how is a clear advantage. However, they may find that the specialists are not sympathetic to translators' concerns or that they simply lack 'terminological awareness', i.e. an understanding of linguistic considerations and translation-specific problems. Yet there seems to be a growing readiness on the part of company staff to cooperate with the translation department or language service and to support its language efforts, as the management takes an increasing interest in the development of a corporate identity and language.

- EC translators have direct access to the client. The incoming texts specify the telephone number and name of the text author or person to be contacted in the DG unit from which the text originated. These people are expected to answer any question that might arise in the process of translating. In fact, in-house translators make ample use of this opportunity and prefer to address the "demandeur" ('Auftraggeber') rather than the in-house terminologist. Senior translators stress, however, that queries often have more to do with textual inconsistencies and questions as to what the client wants the text for than with basic terminology. There are also opportunities to contact external experts (e.g. Ministries, the German Statistical Office etc.). But in the final analysis, even the EC translator is not spared the need of doing terminological research.

* *Contacts with other countries*

Another useful source of information is contacts with other countries. Company translators sometimes have the opportunity to contact subsidiaries or customers abroad or to talk to staff returning from business trips abroad (let us say after working on a construction site in South Africa, for instance). Unfortunately, such opportunities are few and far between and when they *can* be seized, contradictory information may be obtained, because a Canadian customer, for example, might make quite different use of a term designating a part of a particular machine than does, say, the foreman on a South African construction site.

* *Terminologists*

In our case studies terminologists occurred only in the framework of the EC terminology departments. The terminologists have the task of building up a termbank (EURODICAUTOM) and compiling glossaries. They extract the terminology of a domain in question from EC documents ("Alles, was terminologieverdächtig ist, wird genommen") and make it available in the form of termbank entries or glossaries. Furthermore, they provide a support service for individual queries from translators. To this end, they have access to a great number of contact addresses and frequently phone up experts in the field. The problem is that there is only one (native speaker) terminologist per EC language. This person has to deal with a host of domains and vocabularies and inevitably cannot be familiar with all of them. In the European Parliament, there is not even one terminologist per language. Moreover, queries come in bilingually. Thus, the German section's terminologist knowing six EC languages will face problems if confronted with a German-Greek question.

Translators report that the interaction between translators and terminologists is poor. Although junior translators make use of the terminologist's help-service for individual queries, they exclusively turn to the terminologist who is responsible for the source text language, as he is a native speaker of that language. Being non-native speakers themselves, they need to check source text comprehension problems; among other things, they need to know whether the text is correct or contains authorial errors and whether its terminology is standardized. As far as the right expressions in the target text production are concerned, however, they turn to the client or to colleagues for advice, solutions or hints as to where to look for information. Senior translators admit that they hardly ever contact the terminologist preferring instead to turn to fellow-translators or other contact persons and thereby obtaining quicker and more reliable information about how a thing works and what it is called. Similarly, there is hardly any feedback or contribution on the part of the translators to the terminologists' work. The translators are supposed to do translations, while terminology work is reserved for the terminologists. As a result, translation-specific terminological information is not adequately accounted for.

* *Further training*

Internal and external training to gain factual subject knowledge is another means of acquiring information, which will be dealt with separately in chap. 3.5.

3.4.2 Elaboration and representation

As illustrated above, one major problem with the various sources from which information can be acquired is that the information is rarely elaborated and presented with a view to solving translation problems. Easy retrieval of information presupposes meticulous elaboration and a clear structure. It scarcely needs pointing out that file-card systems and term lists can hardly live up to these expectations; they often lack transparency and are characterized by a translator's individual style or notation system. What is needed is a flexible computer-based tool. In this context, three factors are of overriding importance: record classification, record format and right of access.

There are of course several different ways of structuring a **record classification**; one way which suggests itself is classification according to domains; other - more user-specific methods - might include classification according to client, translation project or type of text. Again, it seems appropriate to look at in-house translators on the one hand and agencies/freelancers on the other. As far as the latter are concerned, classification according to clients seems to have priority. This can be explained by the fact that their clients mostly have an individual terminology and that they are often expected to deliver not only a translation but also a glossary. Given that agencies attempt to concentrate on a few domains and that not *all* terminology is user-specific, it might be worth considering the possibility of interrelating the categories *client* and *domain* in order to avoid double work. Sometimes a combination of categories can also be found in companies and the European Community. Here the records are classified according to domains and/or projects, in the European Parliament also according to the type of document (as a criterion for style and usage). Clearly, the way in which records are classified and related to one another can either facilitate or hamper the retrieval of information.

Another important factor in this context is undoubtedly the type of information provided in an entry, i.e. the **record format** (cf. Albl, Kohn & Mikasa 1992 for a detailed discussion of this aspect). With the help of termbanks an efficient and unified record format can be worked out, catering for the domain- and customer-specific storage of information and for translationally relevant information categories. Certainly, different quality and quantity of information is needed depending on the working environments of translators and their respective levels of specialization and experience. Senior company translators, for instance, do not need as much information as freelancers and agency translators, since they have worked in a restricted number of domains for several years. By contrast, unexperienced company translators might need precisely the type of information (e.g. definitions) their senior colleagues have acquired over the years. Moreover, industrial translators often share a termbank with other departments (technical writers, engineers) who have quite different needs. On this account, the record format has to be a compromise accommodating the interests of its various users. In the termbank of the European Parliament, terminologists have to follow strict instructions in terms of record format: the active window should provide as much information as possible while at the same time all nine EC languages must be accessible at a glance. The fault EC translators find with large-scale databases such as EURODICAUTOM is that it is not easy to find the required information, because there is only a simplistic system of narrowing down the choice. Consequently, the record format ought to be designed in a highly fexible way, providing extensive or selective information when necessary. The records could be summarized, for example, presenting the main information first; users could then select part of it to look up more details. In this respect, the use of selection parameters would be extremely helpful.

The record format automatically raises the question as to who is responsible for the representation of information, i.e. the **right of access**. Whenever there is only a small team of translators working closely together, the right of access should not be a bone of contention. As soon as there are many different users, however, controlled access has to be guaranteed. Conceivably, there might be several levels of access (e.g. read-only, update, merge, remove), each with its own password. Only in this way will a unified approach to termbank management be possible.

In our case studies we found that in terms of record classification, record format and right to access, users tried to adapt the system to their specific needs whenever the respective software made individual structuring possible. Nevertheless, they all faced difficulties of various kinds, which can be ascribed to the following causes:

* The tools in use do not permit a termbank structure appropriate for translation purposes. People use general database management software, i.e. relational databases such as *dBASE* or, even worse, spreadsheet software (if only because they did not have to pay for it). The shortcomings of this type of tools are obvious: they only provide a rigid record format, the entry fields are too short and often the tools are not memory-resident, i.e. they cannot be run simultaneously with the text editor. As a result, the retrieval of information is cumbersome and time-consuming.
* Where there *is* a flexible tool such as *MultiTerm* (which seems to be favoured by many translators), people confine themselves to the basic functions. In doing so, they pass up the opportunity to use valuable sophisticated functions. However, the blame for this failure cannot be laid at the door of the translators, for the one reason that there is no time and no money for training, and the other that, at least in companies, the termbank has to serve general communication purposes rather than translation-specific needs.

What it all boils down to is that the different groups of translators need termbanks that can be designed or are *already* designed to meet their specific requirements. As we have seen, the requirements differ from group to group. Termbanks providing tailor-made ways of representation could help solve many of the problems inherent in translators' work, thus giving them time to devote some of their attention to the elabortation of terminology.

3.4.3 Verification and updating

Reliable terminologies as required by all translators are based on the verification of terms by means of in-depth research and/or expert-feedback. **Verification** is thus subject to the general difficulties faced in the course of terminology acquisition (cf. chap. 3.4.1) and to the perennial time factor. Few experts are prepared to answer translation-related questions and only some clients are ready and able to help in the verification of terms. Term verification is a major problem with respect to terms/facts which lack an equivalent in the target language and to highly specialized fields, where most experts and native speakers feel helpless. There are languages (e.g. Hungarian), where the possibilities for verification are minimum. The fact that many terms remain unverified due to a lack of time, suitable expert advice, relevant literature or well-informed native speakers has implications for both termbank management and translation practice. First, it is a major factor which makes for a constant feeling of uncertainty on the part of many translators, especially those who are not in a position to work regularly on a given domain and in collaboration with one and the same customer. In many cases they end up using expressions in the target text of whose suitability they are themselves far from certain. Secondly, it is a major (if only motivational) obstacle to building up a termbank, which, after all, ought to contain validated terms.

Updating can be regarded as the epitome of terminology management. There is no systematic terminology management without updating, which aims at detecting, modifying or deleting wrong, contradictory, inconsistent, obsolete and redundant information. The conventional methods of terminology management to which translators are still accustomed make systematic updating difficult. File cards, for instance, are usually full of obsolete or redundant entries, which are eliminated or modified only when a translator happens to come across such an entry. As it is extremely time-consuming to weed out entries manually, updating is done at random.

The introduction of termbanks has not changed this method, since most systems still lack automatic updating functions or else their users do not know how to handle them. Furthermore, updating is made difficult by the rapid changes in terminology, the enormous number of neologisms (e.g. in the EDP sector) and the lack of opportunities to catch up with such changes in direct contact with up-to-date experts.

On the whole, updating is felt to be highly problematic as it requires a lot of time and a highly competent person, if not a terminologist, to manage the system. On the one hand, there is a need for several translators to share a termbank in order to ensure consistency, on the other, the number of people authorized to update a termbank needs to be restricted. In fact, confusion arises constantly in cases where several translators have access to the editing functions of the same termbank.

As a result, updating is a kind of vicious circle: As it is difficult to establish central control of a termbank and as there is hardly ever time for translators to do terminology work, updating is severely neglected; if the termbank is not up-to-date, it is of no use - valuable software thus remains unused. If carried out at all, updating is done without a concrete strategy, i.e. only when a translator happens to come across an entry which needs modifying and happens to have the time to do so.

This method is applied not only by freelance translators, in whose case the focus is on pure translation. Interaction with the terminology department being poor, even EC translators have their own provisional terminology management system, which comes very close to that of freelancers. With regard to the management of EURODICAUTOM, they have the opportunity to send off comments to have entries corrected. However, there are not enough terminologists to process each comment immediately. Also, the computer-aided functions merely include an automatic search for *double* entries. As we can see, systematic updating does not even exist in terminology services the size of EURODICAUTOM.

Agencies face another problem with respect to updating, namely the incompatibility of formats. Frequently, glossaries delivered by the clients cannot be merged with those compiled by the translators. By the same token, regular supplements and updates provided by some clients cannot be included unless the formats are compatible. Consequently, in doing a translation, a translator may have to turn to several glossaries simultaneously which do not necessarily contain consistent information. Even if the formats are compatible, glossaries compiled in the context of a project are not often merged with the overall stock of recorded terminology due to the constant lack of time for post-translation terminology work.

Ideally, systematic terminology management including regular updating procedures could increasingly provide on-line access to specific information and could help to gradually do away with the need for tapping a variety of information systems. It is certainly indispensable if translators want to come to grips with the problems related to meaning and the inconsistent use of terminology.

3.5 Further training

The previous sections have shown that the efficient retrieval of terminological information requires well-organized means and procedures of acquisition, translation-oriented elaboration and representation methods as well as systematic updating routines. Last but not least, retrieval is considerably influenced by the knowledge factor. A translator who lacks terminological and encyclopaedic background knowledge will find it difficult to search for information, to recognize relevant information and to navigate information systems (cf. test results in Albl, Kohn & Mikasa 1992). It cannot be denied that there are ample opportunities for further training. These include:

* visits to and guided tours of companies, participation in business meetings, negotiations, product presentations and trade fairs for the improvement of background knowledge;
* seminars on the use of software
* language courses (esp. in the EC)

Generally speaking, translators are interested in making use of these opportunities, since this would clearly facilitate their task. However, the demand is rarely met as further training measures often fall prey to the ubiquitous lack of time and money.

For reasons already illustrated, this applies to freelance translators in particular. As freelancers are organized on the basis of clear self-reliance, they are hardly ever offered further training by clients. When they study background literature or go to presentations they do so on their own initiative.

The same is true for agency translators, unless they cooperate with the client in the framework of large-scale projects. In such cases, clients either invite translators into the company for talks and instructions or else send an expert to the agency to brief them.

Industrial translators are often in a somewhat better position. Depending on the management style of their company, they usually have some opportunity to take part in the company's overall activities and to consult the experts in the field. Sometimes translators feel themselves regarded with suspicion, as in the experts' view they often fail to understand "the most basic things" (at least at the beginning).

Special further training programmes are provided for EC translators. They are geared to foreign language acquisition on the one hand and subject-related background knowledge on the other. In-house language courses are offered to cover the languages of new or future EC member states (e.g. Swedish and Finnish). EC translators are expected to master two foreign languages at the beginning of their career and to acquire a third or even fourth quickly. Secondly, as a back-up to the translators's work, introductory courses on how the EC works and general lectures on the Directorates-General are organized by the various units; opportunities are also provided for translators to sit in on meetings and listen to the experts speaking in their mother tongue. Visits to EC institutions or guided tours of outside organizations or even power plants are arranged, although the number of those who can go on them is limited. Translators can also apply on their own initiative for a lecturer to come and talk on a special topic. A provisional action programme is outlined for each group of the translation service, to be implemented according to the response. This also includes training in EDP. Although in the EC there seem to be ample opportunities for further training, translators do not make much use of them. The general comment is: "There is not enough time, you'd lose whole days on it".

4

Terminological strategies of translation practice

More than any other group dealing with terminology, translators are aware of the complex problems it can pose. This is due to the profound cognitive interpretation and processing efforts required in the reception and production phases of the translation task. However, our case studies have clearly shown that despite this awareness, translators do not pursue concrete strategies aimed at tackling the complexities described in chapter 3. In addressing their problems, translators still seem to rely on ad hoc solutions. We were told that the general strategy for coping with terminology-related problems is: "You identify the difficult terms and you fudge (*sich etwas aus den Fingern saugen*). Many problems solve themselves in the process". The same goes for the effort to achieve consistency. While its need becomes apparent in the production process and is therefore recognized by translators more than by most other users of terminology, it is not pursued in an organized way: "You try carefully to stick to certain terms in larger texts. Consistency is achieved through memory". Finally, preliminary background reading is only done on very rare occasions. Due to the constant lack of time, translators rely on the gradual build-up of experience: "The routine comes with the increasing number of texts that have been translated."

On the whole, it can be stated that there is a lack of systematic acquisition of information, systematic striving for consistency, and systematic terminology management. At the same time, due to the increasingly widespread use of computer technology there is growing awareness of the need for, and feasibility of, systematic procedures. Some standard measures have been tentatively applied. Most of them are adopted in different degrees from case to case. The attempted strategies may be heterogeneous and more or less efficient, but their aim is a single one: to solve term-related difficulties and to tackle the issue of consistency. The two are closely interrelated and are clearly the major concern and preoccupation of translators.

The strategies include, in particular, the use of a variety of sources for terminological acquisition and attempts at managing terminology. In varying degrees (cf. chap. 3.4.1) they comprise terminological research in the relevant specialist literature, queries to the client, technical writer or specialist department and participation in internal and external training courses and seminars, where products and technologies are introduced and illustrated. Increasingly, they also include presentation of the acquired information in a termbank, which in turn is directed towards supporting translators in coping with terminology-related problems. By way of illustration, the following four sections will highlight the most common individual strategies that are adopted in an attempt to resolve terminology-related difficulties. One might define these as *pre-translation stragegies* (measures undertaken before commencement of work upon the translation itself), *in-process translation strategies* (measures undertaken whilst translation work is under way), *post-translation strategies* (those adopted after completion of a given translation) and *pan-translation strategies* (those found within the larger world of translating and used by varying groups to varying degrees).

As was to be expected, our study of translation strategies did not disclose a universal panacea for all the problems translators face; it has been instructive, however, with regard to the translation-oriented use of terminology, its status in translation practice and translators' needs regarding terminology management. By doing so, it points to user requirements and possible ways of meeting them.

4.1 Pre-translation strategies

* *Compilation of relevant terminology*

Pre-translation terminology work is a common strategy. It needs to be stressed, however, that terminology compiled in advance can at best only form a basis for in-process terminology work. This will become clear from the following examples:

In one of the companies, pre-translation terminology work turned out to be part of the effort to achieve consistency. The relevant terminologies are compiled beforehand and passed on to the translators, who comply with and follow the terminology laid down for them. As a preliminary and complementary step this helps ensure consistency, but of course it cannot preclude queries put to the client or expert to help clarify text- and translation-specific problems during the translation.

The translators of one agency reported that once the job is allocated to one of its language sections, the translation manager looks at the text, notes down its difficulties and puts these queries to the client. Afterwards the text is passed on to the in-house or external translator. The translators complained quite understandably that at such an early stage only few of the text-specific problems could be solved or indeed identified, for too many problems do not crop up until the text is actually translated; inevitably, these go unnoticed during a preliminary analysis.

* *Allocation geared to specialization*

Organized allocation can be a measure to help achieve consistency and high-quality translations. It helps to select translators who are thoroughly familiar with a given terminology or who have translated texts from the same company or domain before. It thus enables translators to specialize at least to some degree.

In the EC Commissison, a tray is provided in each language unit for each Directorate, i.e. domain. For each tray there is one senior translator who is responsible for the allocation of the texts that have been put down. This is particularly important when long documents come in bit by bit over a long period of time. On the whole, however, translators serve themselves, picking up texts on the basis of a compromise between "priority texts" that have to be done first and texts they would like to translate. Usually, a third to a half of their translated texts come from their favourite domain. The rest is more general work. As the range of EC activities widens and EC translators have to cope with a growing number of new domains, specialization becomes partially possible.

Freelancers confronted with continually changing subjects, clients and text types can hardly afford to specialize. All they can do is place the stress on, say, technical topics in general rather than medicine in particular and attempt to have an increasing number of regular clients. Agency translators are also confronted with a great number of domains and clients. Their advantage is that attention is paid by special personnel to the targeted allocation of texts (*Disposition*). In addition, clients influence the choice of translators through their criticism and feedback. In-house translators are better off in terms of specialization insofar as they have only one client. It must not be overlooked, however, that reorientation becomes necessary in the case of mergers and takeovers of companies from related fields or when new customers have been attracted.

While the scope for specialization varies, considerable flexibility is generally expected from translators. Urgency always has priority over predilection. Efficient allocation might be supported by computer-aided access to translator profiles stating their languages, experience and specialized subjects.

4.2 In-process translation strategies

* *Exchange of information*

All translators agreed that the principal and fundamental strategy for coping with terminological problems is to consult the relevant literature. This helps tranlators to gather the encyclopaedic and terminological information without which certain text passages could not be understood and hence not translated properly.

When background literature is hard to come by, material is often passed on from the client to the translator or circulated among the translators themselves. For freelance translators this is often the only way of gaining some job-specific background understanding and of acquiring specialized information. In some companies termbank information is made available to in-house as well as external translators, either online or on hard copy in the form of brochures, books or printouts. Printouts of terminologies compiled by terminologists or experts often save a lot of time, which would otherwise be needed for terminological research. They are extremely helpful if they are used as a source of information and not regarded as providers of pat solutions. Company translators explicitly expressed the wish that there should be better coordination with other companies, institutions, etc. as far as the provision, exchange and dissemination of existing stocks of terminology is concerned.

A more controversial aid is the **binding glossaries** delivered by some clients, who insist that their own terminology be used. We were told that they may spare the effort of term acquisition but that they can also lead to a situation whereby terms have to be used which are inappropriate in the given context, misleading, wrong or simply not as good as the translator's suggestion. In such cases it appears to be extremely difficult to induce the client to agree that his glossary should be modified. Similarly, some clients deliver **internal guidelines** to translators, such as styleguides to ensure unified ways of spelling and character formatting.

Another means of clarifying points and, even more, of achieving consistency is the exchange of verbal or written information. **Discussions among colleagues** are very popular among in-house translators in small translation departments or freelance translators sharing an office. Mostly they come about spontaneously. Only in rare cases, e.g. when a termbank is to be built up, are regular block sessions organized to validate or agree on terminology.

Undoubtedly, the exchange of information can facilitate the process of translation. Sometimes, however, it is made difficult by compatibility problems. On this account, conversion software and standard formats for termbanks need to be further developed. At least the interchange of terminological data should be facilitated, e.g. on the basis of SGML (Standard Generalized Markup Language).

* *Reverting to previous translations*

Anyone who lacks the time or the means to extract useful information from a finished translation and store it for further use will have to fall back upon this translation once a similar job has to be done. For freelance translators this is often the only way to ensure any degree of consistency. In order to find previous translations quickly, they are stored in customer-specific files; this helps to streamline the translation process and make it more profitable.

EC translators in the Commission are asked to file away all translated texts in folders. Each language unit has a folder which is structured in an ad hoc division based on the fields of activity in which the Commission works. The secretariat also gathers administrative information on all the texts that have been translated so far. Thus it can help to retrieve previous translations. They serve as an immediate source of reference, which is of particular importance for some text types, such as minutes. Looking up the translated minutes of a previous meeting makes it a lot easier to find the relevant terms and to use them consistently. In fact, all the texts that are issued regularly are used to find expressions for the production of target texts on the same subject. The same applies to similiar texts and documents for which reference is given.

The problem with previous translations is maintenance of the folders. At present, all that is done is throw out the old translations after a couple of years. One translator suggested that both translations and source texts should be stored in a database and that on-line access should be provided for translators, so as to enable them to scan parallel texts for previous terminological decisions. For official documents there is already a database, but the documents are filed away according to language. It would be worth considering the possibility of storing the documents in a single database and linking them via the automatic numbering of paragraphs. This might be an appropriate solution to the problem of moving from a particular point in the text to that in the parallel text; retrieval could thus be considerably facilitated. At the same time, it was pointed out that it would be important to stress that any translation has to be taken with a pinch of salt. Unlike official glossaries, they are not verified and so should serve merely as a starting point.

4.3 Post-translation strategies

* *Revision*

In the production of high-quality translations, revision plays an important role. Going over a translation after it has been finished can help detect mistakes and inconsistencies that might have slipped in. It is thus an ideal way of overcoming the problem of consistency. Nevertheless, in practice it is often omitted due to lack of time.

In the European Community, revision is taken very seriously, especially when jobs are passed on to external translators or junior translators who are not yet familiar with the in-house organization and terminology. In the Commission, the head of a language unit, who is responsible for co-operation with freelance translators, decides whether a translation done externally should pass through the hands of a reviser. In-house translations are usually proofread by the senior translators, who are also responsible for the allocation of texts. Since they cannot check all the translations themselves, they decide which of the in-house translations should undergo revision by another translator.

A special situation arises in regard to freelance translators. They stressed that in technical texts they are rarely confronted with difficulties regarding grammar and style, but rather with problems resulting from the technicality of terms. For instance, it is not uncommon that extremely specific and complicated terms such as *Nenn-steh-blitz-stoß-spannung* (*Bemessungsgröße für Schaltanlagen*) have to be translated. The equivalent *rated lightning impulse with stand voltage* means nothing to the lay native speaker. There is therefore little point in having the translation proofread. While in-house translators have some opportunity to draw on company experts or even visiting native speaker experts for the revision of parts of their translations, the freelancer is left with the strategy of putting down a literal translation and hoping that it is somehow in line with what is required. Tools need to be designed to cater for such overspecialized sub-branches of industry.

Revision is of the utmost importance when texts are split up between several translators. The general strategy is to avoid splitting. If this is not possible, as in the case of urgent and long texts, some kind of translation or project management is needed. In agencies there is often a project manager to coordinate the work on a large text divided among several translators. In other cases there is some kind of coordinator, editor or reviser, who may be one of the translators involved in the project, a third independent translator, or simply a reviser who is not a translator but a native speaker. The native speaker is often useful when it comes to post-editing a number of incoming texts from different translators, making up a single document. Provided that the formats of the various texts are compatible, such a post-editor has to carry out language and consistency checks. Style, grammar, spelling and terminology checkers would be very useful at this point.

* *Systematic and regular terminology management*

The consistent use of the terminology of a given domain requires systematic terminology work. The need is most keenly felt in large-scale projects or when a number of translators have to work on a given domain. In order to achieve consistency they need to have **joint access** to the relative terminology. The traditional way is that colleagues have access to each other's file-card boxes. Compiled on a provisional basis, file cards are rarely systematically managed.

Termbanks are easier to handle and are becoming increasingly widespread. For freelance translators it is difficult to lay down binding organizational criteria; the question is whether terminological information should be organized according to customer name (company-specific terminologies), text type (certificate, document, contract etc.) or domains. Unlike in-house translators, freelancers have no superordinate termbank structure dictated by company interest. For that reason, freelancers have told us that they do not like anybody else to interfere with their input. They do not mind allowing their colleagues to look at their terminology or passing on printouts, but they do not want them to add to or modify it. As a result, their entries are often **password** protected. Even in shared offices and among translators working in the same languages there is only poor collaboration with respect to terminology management ("Jeder wurschtelt mit seiner Datenbank alleine vor sich hin"). In order to promote more organized forms of co-operation, freelancers should be provided with guidelines on how to achieve a unified representation mode.

In a number of agencies and companies the installation of *MultiTerm* is gaining ground. Firstly, in-house translators are faced with the task of agreeing on an appropriate representation structure (cf. chap. 3.4.2) and secondly they have to enter their file-card records step by step into the termbank. In some cases they never succeed in accomplishing this exercise, as not enough time is allocated to terminology management.

Once a termbank *has* been filled, problems arise from sharing it, i.e. with respect to its **central management.** Especially when a greater number of translators are linked over a Local Area Network (LAN) Termbank, it becomes difficult to organize the responsibilities for editing and modifying entries and to determine the levels of access. Yet **networking,** i.e. joint access to the same terminologies, is an important means of ensuring consistency over various domains. A single data manager is needed to harmonize all entries when the users are not in the same room and do not have the opportunity to discuss their decisions and input.

One of the companies that we interviewed has adopted the approach of specifying a **term status** for each entry in the termbank (e.g. *suggested*, *draft*, *review*, *approved*, *released*). A term and its related record have to meet well-defined quality requirements for the respective status to be attributed to it. When a term changes in meaning or usage, its status is put back to *draft* and has to rerun the whole verification or authorization process from *draft* to *released*. This is done in close co-operation with the experts. Furthermore, the record fields *source* and *terminologist* also help to indicate the reliability and origin of the entry. In this way, the handling of the termbank by more than one translator can be managed.

In the EC, the sharing of a network termbank has proved its value, because only staff of the terminology department have the password to change and update the termbank. What is more, there is only one terminologist per language responsible for all editing routines. The disadvantage of large **centralized databases** is that there are often not enough staff to keep the termbank up-to-date.

It seems important that the necessity of installing a centrally controlled updating mode, i.e. the restriction in the number of people responsible, is combined with semi-automatic updating routines to help the termbank managers fullfil their comprehensive task. It is certainly not enough to have routines to weed out double entries as is the case with EURODICAUTOM. *MultiTerm* does not even provide such a function. KEYTERM has an automatic search routine for double entries and merges similar entries. Finally, interfaces have to be provided for translators, especially those in agencies, to load updates made available by clients.

4.4 Pan-translation strategies

* *Co-operation with external translators*

External translators are approached by the EC, industrial translation departments, agencies and by freelancers themselves. Jobs are passed on to them in very busy periods.

The EC Commission and Parliament cooperate with a restricted number of freelancers on a regular basis. Its in-house translators try to do as many translations as possible; the remainder is passed on to freelancers with the exception of a few extremely long or specific documents, which are given to translation agencies. In-house translators mostly refrain from supporting their external colleagues over the phone or fax machine, as there is not enough time to answer questions. Freelancers do have the opportunity of using the EC facilities, such as libraries, databases etc., but most freelancers do not live in sufficiently close proximity to these facilities. Attempts are therefore made to provide them with terminologies or other reference material. The Parliament intends to give freelancers on-line access to its databases.

There are also agencies which make software available to freelancers. They can thus load down glossaries and auxiliary information via network or modem. The use of modems helps external translators profit from reduced fees at night and over the weekend. Some companies research the terminology for the freelancers beforehand. In addition, they hand out whatever reference material they can. As a rule, however, freelancers are not generously provided with material. As their means for systematic research are restricted and time is short, their use of terminology is not as consistent as that of in-house translators. External translations are therefore subjected to post-translation revisions in most cases.

* *Introduction of prescriptive elements*

Some companies are making efforts to achieve harmonization of their specific terminology. In one of the modern and smaller companies, the translators of the language service are entrusted with the task of working out company-specific standards in co-operation with the specialists. What is more, they are called upon to exert an influence in the various company departments and during the phases of product development in order to ensure the consistent use of terminology. The aim is to set up a **Corporate Language** and to enforce it on a company-wide level. As the company is small and well-equipped and its staff show a high degree of motivation and a strong sense of corporate identity, the attempt seems very promising.

By contrast, in-house translators in another large and traditional company reported that translators are not permitted to exert an influence. They would like to have a say in the more consistent use of terminology within the company, but experts refuse to take "orders". This has to do with the complex hierarchy of positions in the company, the wide range of subdomains it deals with and the large network of national and international links it upholds. As a result, translators do not have the same standing here. To facilitate their task, a top executive and expert in the company's affairs has written so-called "**Normtexte**", i.e. standardized paragraphs on recurring product descriptions. These mini-texts have been translated, numbered and stored in the computer. When a text comes in for translation the secretary marks the standard phrases and paragraphs in the text and makes a note in the text of the number under which they are stored. All the translator has to do is to retrieve the text with the same number in the target language and to exchange it for the source text paragraph. The 'standard texts' can be combined easily to form various offers or other types of text aimed at foreign customers. This strategy comes close to setting up some kind of **translation memory**. In fact, it is for the great number of repeated routine formulas and descriptions in companies that this tool can come in handy.

On the contrary, official **standardization**, such as EURONORM, is not really suitable as a means of achieving conistency. Translators simply do not believe in the feasability of its implementation and point out that it is a rather unrealistic aim in view of the pragmatic attitude of experts, the dynamic nature of technical communication and the need for language to be flexible (cf. chap. 5.2). All solutions suggested for coping with terminological problems and the issue of consistency therefore pointed to means and sources of terminological research and terminology management rather than to standardization.

* *Exploitation of translators' terminological output*

In translation practice, the terminological output of individual translators is mostly lost due to the lack of systematic terminology management. In the EC, where ample means of terminological acquisition are provided, translators freely admit that they never go over their terminology notes after the translation. The strategy is to write down the entirely new items on a piece of paper during the translation and hope that one remembers them when the need arises. Apart from this, translators rely on looking up terminology over and over again in the various information sources. Freelancers and agency translators, who are not provided with terminology management facilities, try to quickly pin down some of the expressions they have used in translations together with their source language equivalents in order to get at least a stock of rudimentary terminology.

Large-scale projects in the field of electronic data processing give rise to more comprehensive and thorough terminology work in the framework of agencies cooperating with clients. This is due to the fact that in software packages, the manual, menues and on-line help have to be consistent. One of the agencies reported on the compilation of glossaries including translational findings. At first, terms were elicited from texts by highlighting or indexing the relevant terms and phrases manually. They were then automatically extracted from the source and target text files by a function of the editor, sorted according to certain criteria and put into a format (e.g. spreadsheet). To create glossaries for new terms, these are marked in the source text file and additionally delivered by the customer to the translator as keyword lists, in which the translator enters suggested translations. The suggestions are reviewed by the customer's language service and the new terms are integrated into the existing glossaries. Remaining translational problems are stored by translators and revisers in a so-called "remark-file". Titles and subheadings are compiled in a "table-of-contents-file". These "rem-" and "toc-"files are sent to the customer together with the translation and are then elaborated upon by the customer's language service. The results are sent back to the translators and revisers in the form of updated glossaries and guidelines (or even direct feedback and criticism). The production of partial project-specific glossaries, which are then integrated into superordinated "merged glossaries", make it possible for translation-specific information to find its way back into the translation process in a cyclical movement.

Another example is a large-scale project of over 2000 pages, where the text was split among several agency translators with one experienced translator functioning as a coordinator. During the translation process, the difficult and unknown terms were left untranslated in the target text and listed separately. Every day, the various lists of terms were passed on by the translators to the coordinator, who in co-operation with the client worked out the equivalent terms in the target language . One of the translators merged the lists into a glossary, modifying and updating it according to the coordinator's instructions. The problem was that there was no network. As a result, each update of the glossary had to be stored on a disc and handed out to all translators, who in turn had to copy them onto their hard disc. The translators then searched for the source language terms in their translations to overwrite them with the equivalent found in the glossary. All translations were finally revised by the coordinator. A second revision was carried out by the client, which made for additional changes. The compilation of terminology in the translation process clearly may require much effort.

In the EC, the problem of how to integrate translators' terminological findings into existing stocks of terminoloy and how to make them available to the other translators in a systematic way has yet to be solved. The fact that EC translators prefer to turn to their colleagues for advice rather than to the terminologist clearly shows that these findings are highly welcome. It is true that the Commission's translators have the possibility of handing in suggestions for modifications to EURODICAUTOM. These undergo at least a formal check by the terminologist. However, the terminological output of translators at work hardly ever finds its way into the stock of existing terminology because translators rarely make use of this provision. This may have to do with the fact that translators feel diffident about their suggestions. As they have no time for the validation, verification and further elaboration of terms, they regard their input as low-grade terminology, while what goes into a termbank should be of good quality. That means that the decisions they come up with are accounted as suggestions to be used in the text without any guarantee as to the official version. Another reason may be that the good renderings of source text expressions are very much a matter of the specific context in which they are embedded (cf. chap. 5.2).

There have in the past been attempts in the EC Commission to process translators' terminological output. At some stage, senior translators had the idea of compiling lists of translational solutions. At the beginning, access to these solutions was to be strictly controlled. In time, as the suggestions appeared more often, confidence in their reliability would grow, which would approximate to a verification process. The idea was never put into practice, however, as the procedure seemed too difficult to manage. A concrete attempt was made to compile a phraseology glossary on the basis of translations. Translators were to record good renderings of difficulties, partial translations, ad hoc solutions and other good ideas on a piece of paper. The problem was that such expressions were not retrievable. In another attempt on the part of senior EC translators to make their contributions available to the overall terminology work, well prepared sheets were circulated, in which translators were to enter terms and comments to be put into the database at a later stage. The sheets were designed in such a way that putting in terminology was made very easy and did not take much time. Yet there was no response; the sheets were soon dropped and all terminology gathering exercises had failed.

The exploitation of translators' terminological output calls for tools which provide efficient storage and easy retrieval of translation-oriented terminology. It is essential that their editing functions be highly flexible in the processing of unvalidated information to be verified in the course of time.

5

User orientation in translation practice

5.1 Terminology-related needs in translation practice

A fundamental observation resulting from our case studies is that translators are a very heterogeneous species. Their environments differ greatly and the four groups of translators place different emphases in their work. Their needs and demands vary accordingly.

Freelance translators are little organized. Exaggerating only slightly, their situation could be described as follows: Much time is taken by a technical writer to produce a rather unreliable text, which the freelance translator is then supposed to translate over the weekend, when libraries are closed and the author is not available. Their working conditions leave no time to do terminology work and they lack the money to buy equipment. As a result, freelance translators insist that sophisticated tools are not of much help to them; what they need are "**reliable terminologies**", which should be provided for them.

Agency translators are strictly ruled by the dictates of **profitability** in a highly competitive market and **client schedules** based on overall marketing strategies. Under such pressures the translator is in urgent need of computer-aided support, especially for the complex and time-consuming terminology work. However, while there is professional equipment (e.g. DTP- and printing facilities) for the increasingly comprehensive services agencies offer, there are rarely efficient **terminology management tools** or if so, translators do not know how to handle them. **Training courses** are not provided for. This is partly due to the fact that terminology work is often carried out by project-managers in close co-operation with the client and does not sufficiently involve the translator. In other words, terminology is not seen as part of text management but of job management. Terminology is managed *for* the translator rather than *by* the translator. Terminology work thus often fails to be translation-oriented, which is not conducive to the complexities of the translation task.

In-house translators in industry are eager to work with and elaborate upon terminology. They feel part of the company and its overall operation process and see themselves as the driving force behind its technical communication. Their translational work is inextricably linked with the company's special field of work, confronting them with domain-specific terminology. Therefore they have a stake in the **consistent use of terms**. Standing at the cross-roads between the anarchical behaviour of many terms in real-life technical communication and the company's ambition to develop a corporate identity and language, they feel best suited to mediate between actual language use and the desire for harmonization. They derive special terminological competence from the fact that they receive first-hand information about technical developments and the latest use of fast-changing terms. They are well placed to quickly note the obsolescence, modification or creation of terms. They act as an interface as it were between the incoming text, which is characterized by the pragmatic use of terminology by experts working in the field, and the outgoing target text, which is marked by the linguistic know-how translators bring to bear on it. As in-house translators closely monitor the usage and evolution of the terminology of a domain, they feel able to act as a switchboard, checking, coordinating, integrating and eliminating terms. In other words, they are perfectly positioned to do terminology management and to do it in a translation-oriented way.

The problem is that the potential of the translator for terminology work is not generally understood, appreciated and exploited. At management level, most companies, with the exception of some modern firms and their language services, regard the in-house translator as a mere user of terminology, while its provision is seen as a task for a terminologist. The **terminologist**, however, is a phantom, a non-existent being in most companies. In fact, in-house interviewees repeatedly asked questions such as: "Who is the much-quoted terminologist, where does he work, what exactly does he do?"

Such **misperceptions of the translator's role** are often due to the fact that translators frequently start their career as computer illiterates and ignorant of the specialized subject matter and domain background in question. Moreover, they are seen as a necessary evil in the framework of international dealings, and one which employers would like to replace by machine translation. Consequently, cuts rather than supporting measures are the rule in translation departments. The much needed funds for tools facilitating systematic terminology management are not provided. In-house translators call for a **redefinition of their task** and the acknowledgement of their potential as a "terminolator". They demand the power to wield an influence in terminological matters and that the necessary investments be made.

The in-house translators in the large supranational organization of the EC are an interesting case in point. There is no questioning of their significance and they are held in due regard. EC translators enjoy much better working conditions including adequate equipment ranging from archives, databases and tools to a terminology department with (*real existierende*) terminologists that really exist. Nonetheless the solution is far from ideal. Translators report that the interaction between translators and terminologists is poor. Superficially this may have to do with a certain tension between the terminology and the translation department. They are separate sections and the translators have a strong feeling that "they should feed us, not the other way round". More interestingly, however, translators prefer to turn to colleagues who have translated texts from the same domain over a period of time and are thus better positioned to come up with a solution, than to the terminology service, where there is not enough terminologist staff to deal with language-pair and domain-specific queries. This points to the fact that translators need very detailed **text-specific translational solutions**, which take a lot of experience and knowledge to find.

The EC Commission's translators pointed out that the availability of a terminologist is not a panacea and does not do away with the need for translation-oriented support. This raises an interesting question:

EC translators are in a better position than most other translators. In the form of the centralized database EURODICAUTOM, which covers the relevant domains, and EC glossaries, which are specially compiled by in-house terminologists, they have access to the reliable terminologies asked for by freelance translators. They have the increasingly sophisticated equipment and opportunities for training needed by agency translators. What is more, they do not suffer from the same competitive pressure. Last but not least, EC translators enjoy greater recognition in their work and have the terminologists available whom industrial translators wish to replace. Why is it then that EC translators still do not have an easy task, why is it that they, too, work in a rather **provisional** way? If even under improved working conditions translators suffer from translational problems, this may have to do with the very nature of technical translating.

5.2 Basic assumptions of translation-oriented terminology work

Translators emphasized the fact that LSP texts and utterances are characterized by the flexible and subjective rather than consistent and objective use of terms. This has to be seen against the following background.

- **Standardization** does not work. It has been found that norms and standards take a long time to assert themselves. If they do they lag behind more recent developments and are usually rather short-lived. In addition, they rarely cover company-specific and other extremely specialized terminology.
- **Technical communication** is of a dynamic nature. Technical facts change rapidly and so do terminologies. (A particularly striking example is the field of electronic data processing). The use of terms *needs* to be flexible for partners in communication to express the various perspectives with which they look upon facts.

Experts are reportedly reluctant to stick to linguistic norms or targets. Their use of terms is determined neither by the correct description of technical facts nor by terminological precision but rather by pragmatic aspects such as their personal or career-specific background in the field and the aim of simply making themselves understood. Thus, norms such as EURONORM have been reported to be unpopular. Insensitive to linguistic considerations, technicians cannot see any reason why they should switch from *Schraubenzieher* to *Schraubendreher*. The latter may be much more precise and therefore prescribed by the norm, but it is not at all in line with what they are used to. Nor would they think of using *Positionsschalter* as prescribed by the norm, when *Grenzschalter*, *Endschalter* or *Grenztaster* are the common terms at work. And why bother to differentiate between *Wägezelle* in the case of kilogramm-calibration and *Kraftaufnehmer* in the case of Newton-calibration, if for them it is simply a matter of refering to the same measuring device? What is more, the general impression is that inconsistencies and ambiguities are frequently deliberately accepted by the technical writers as a means of veiling uncertainties or a lack of knowledge on their part ("Authors refrain from expressing themselves incisively, as often they themselves do not know what some of the facts are all about" - "Verfasser wollen mit ihren Ausdrücken nicht so genau sein, da sie selber nicht so genau wissen, ob es das ist, oder was anderes").

Translators have to compromise between the laissez-faire attitude of experts and their aspiration for more consistency, which considerably supports and facilitates multilingual communication. They have to adapt to the fluctuations in the use of terminology. To give an illustration: Terminology is created in everyday use by experts and technical writers. The translator carries out multilingual terminology work. The aim is to match up language-specific terminologies and in some cases to coin new target language terms. While doing so, a parallel process is under way. Before the completion of multilingual documentation, foreign language terminology is also coined abroad in the framework of international sales and distribution, e.g. product presentations and customer negotiations by subsidiaries or other foreign companies. Terms are used which may be less precise or consistent than those suggested by the translator, but which become accepted. It is up to the translator to acquire the given terminology with the help of all sorts of information sources and to make post-translational adjustments and modifications to terminology compiled so far with respect to its further use.

The translator's task was characterized by a senior EC translator in the following way: "[Translators] are devoted to the **'cutting edge'**". This implies:

- topicality: translators have to follow suit and catch up with the latest developments;
- spontaneity: they have to take pragmatic text-specific decisions on the spur of the moment;
- speediness: translations come and go one after the other; they are a short-term exercise.

Consequently, translators shun long-term planning or meticulous considerations. Terminology work, however, is long-term work after all. It involves extensive terminological research, the monitoring of terminological developments and in-depth verification and updating.

There is thus a seeming contradiction between the 'cutting edge' and terminology work. It is in line with the **translator's paradox** discovered in our user tests (cf. Albl, Kohn & Mikasa, 1992), which means that translators are aware of the enormous amount of terminological information they need to solve translational problems. At the same time, they are not inclined to expend considerable effort on terminology acquisition or management. They want ready-made solutions and they want them quickly. They prefer to approach experienced colleagues or informed clients and experts, who might give immediate and reliable answers. They are reluctant or hesitant about expending effort on systematic terminology work. Why is this so?

The nature of translation-oriented terminology is somewhat different from that of systematic terminology. A text challenges translators to come up with answers which they cannot find in conventional terminology sources. Translation involves finding tailored, **text- and context-specific ad hoc solutions** on the basis of pragmatic top-down considerations. At the same time, what fits nicely into a text - backed by the context - is not to be taken as a standard equivalent. In fact, senior translators of the Commission have made it very clear that terminological output in the process of translation is not to be equated with **verified and authorized terminology**, as translators do not have the time to elaborate upon it, e.g to write down a definition and the source. Thus translators are happy to put their solutions into a translation, but they would not like to put their name to them or to suggest them as a contribution to a public termbank. While it is true that modern dictionaries come closer to providing the much needed translationally relevant information (cf. Schmitt's *Dictionary of automotive emission control*), there is a need for translation-oriented terminology to be managed and to act as a complement to conventional terminology sources.

There are also more practical reasons to explain the failure of most attempts at terminology management in the framework of the translation process :

(1) There are inhibitions on the part of many translators about familiarizing themselves with modern computer technology or at least with its more complex functions. Long-time EC translators, for instance, are extremely reluctant to use PCs; they prefer to stick to the conventional method of using dictaphones in combination with secretaries.

(2) Translators are not encouraged to try new ways of working or else simply lack the time to do so.

(3) Translators do not know how to manage information efficiently. They know little about representation structures or navigation and retrieval facilities. Equally, they may recognize the problems, but they do not know a great deal about translation-oriented terminology work and its methods of categorization, elaboration and organization.

As a result, translators need to be supported with a view to managing their translation-specific terminological output and making it available to all translators. At the same time, it has to be borne in mind that translation is and remains a highly **creative** activity and an individualistic one at that. It is a strategic effort, which depends on experience, intuition and the successful linking up of top-down knowledge with specific bottom-up requirements. It is not to be replaced by machine translation or remedied by alleged instant panaceas, such as sophisticated tools or standardization. Rather, it is to be facilitated by measures which are strictly user-oriented and take into account the individual requirements of different translators.

5.3 Synthesis of user requirements

The examination of four different user environments has confirmed that there are two ways of approaching terminology. One can be called the top-down approach, the other the bottom-up approach.

The **top-down approach** is followed by terminologists, e.g. in the EC terminology departments, or by certain language services who aim at building up a corporate language. The starting point is a certain domain, technology or product area, for which the terminology is compiled and elaborated systematically in the form of glossaries and database entries. The terms are looked at as a **system of underlying conceptual relations** and the terminologies are designed to cover the conceptual field comprehensively. Such terminology work is geared to linguistic or rather terminological **competence** and may serve as a kind of background knowledge or source of terminological information.

The need for top-down terminology has been stressed by all translators apart from EC translators who take it for granted and have become used to the availability of EC jargon terminologies. Freelance translators in particular stressed the demand that "reliable terminologies" should be made available to them. They pointed to several reasons why they thought industry, e.g. its umbrella organizations, should provide specific/specialist vocabularies:

- Industry by necessity deals with and operates through terminology.
- Industry knows best its particular field.
- Industry has a special stake in the use of its own terminology.
- Industry must take interest in making available to partners and customers at home and abroad adequate product descriptions, manuals, or information brochures.

Freelancers therefore suggested that the associations of industry, which are already cooperating on a national and European level in areas such as the environment or safety at work, should also collaborate with a view to providing branch-specific multilingual terminologies, thus facilitating the translator's uphill task. In the EC, for instance, the lack of competitive pressure has already brought about some readiness to release terminology; EC terminologists have no qualms about disseminating terminology freely, as they have been already paid for compiling it. At the same time, it has to be noted that EURODICAUTOM information is also partly sold by TRADOS.

Terminology is to be looked at in a different light. It needs to be recognized as a nessessary instrument rather than as a competitive advantage which must be kept secret. Much like many agencies, senior translators and interpreters often hold back their terminological knowledge as it is equated with competence and is therefore an important asset.

In-house translators in companies with a modern language service, by contrast, stressed the need for closer co-operation with regard to the provision, dissemination and exchange of terminology in the terminology producing sectors. As terminology work is a highly expensive and time-consuming task, they underlined their interest in collaborating with students writing terminology-related theses in the framework of modern language studies. In this context, they mentioned that the prerequisite was in-depth subject knowledge.

Free access to terminology goes hand in hand with more efficient access to documentation and text material. Criticism was often voiced by in-house translators with respect to the fact that they could not exploit some of the existing company information and resources, for the simple reason that they did not know about their availability. EC translators complained that there is a lot of information in the libraries and archives "you just don't find". Documentation and text databases make a considerable contribution to the consistent use of terms - not least when titles of other documents are mentioned in a translation - if its information can be easily retrieved.

The *first requirement* can therefore be described as the top-down provision of and free access to **high-quality specialist terminologies**, the development of **documentation systems** with efficient indexing, navigation and retrieval facilities and the adoption of Community regulations on the (paid or unpaid) dissemination of terminology and on **intellectual property rights.**

The **bottom-up approach**, by contrast, is strictly geared to linguistic or rather terminological **performance.** It is concerned with terminology as it confronts all translators in everyday translation practice, i.e. the actual **use of terms** in texts. Its starting point is the dynamic nature of technical communication, the inconsistent nature of texts and the complex nature of the transfer task. Translation-oriented terminology work deals with text-specific solutions and suggested translations, with good renderings of difficulties and ad hoc translational decisions. It needs easily retrievable clues and hints from a variety of information sources, which can be strategically transformed into contextual instantiations. Top-down terminologies are one of such sources. In the form of database entries or computational lexicography they may be more up-to-date. As yet they have, however, failed to overcome the shortcomings of conventional (hard copy) dictionaries. Bottom-up terminology work must therefore be recognized as a necessary complement to top-down terminology work. Tools have to be made available which make bottom-up terminology manageable. To this end, such tools have to provide for routines to handle individual text-specific problems and terminological information, which cannot be easily schematized. Furthermore, they have to take into account the different demands and practices of the four differently organized groups of translators, as well as the differing needs translators may have within a single working environment - e.g. junior vs. senior translators, those from large vs. those from small companies, etc. Such tools clearly have to be aimed at supporting the translator. Firstly, they have to help do away with unnecessary difficulties and mindless working routines so as to release time and energy for the creative elements of translating. Secondly, they have to cater for the easy storage and presentation, access and retrieval, elaboration and updating of translation-oriented terminological information.

However, the most sophisticated tools are of no use if they are not properly handled and if their potential is not exploited. We have come across two cases where practical tools were available, specifically programmed to cater for the needs of the particular working environment. They remained unused. In the one case the agency's translators preferred to use the non-customized spreadsheet software to compile lists and glossaries, in the other case the company's translators quickly returned to their file-card system.

It is clearly not enough to give translators better equipment. Tools are supportive only if they are designed in a highly user-friendly way and are accompanied by training measures.

The *second requirement* is therefore to have extremely **flexible and user-friendly tools** that can be specifically tailored to individual needs. They have to be accompanied by **training and guidelines** on how to make the most efficient use of them. The guidelines have to cover both the handling of a tool, i.e. its functions and potential, and an introduction into translation-oriented terminology work.

If the two requirements are to be fulfilled, three basic assumptions need to be recognized:

- translating is not a simple substituting of fully matching equivalents;
- terminology is a complex and time-consuming component of translation, which has to be taken into account more explicitly;
- translators have a special potential to add their terminological output to existing stocks of terminology, which might bring significant rewards.

If this were generally understood, translation and terminology work could be carried out to the greater satisfaction of both translators and customers. Freelancers could be given better access to terminology and small-scale equipment could be made affordable to support their work. Agency translators could be given more time for systematic terminology work and the training to make better use of terminology management systems. The position of in-house translators could be upgraded and they could be given more influence in terminological matters and the means of fulfilling the combined task of both translator and terminologist. Finally, a redefinition of the translator's task could help find the ways and means to motivate EC translators to make their input to the overall EC terminology effort and to improve the interaction with the terminologists.

Thus, the *third requirement* is a **redefinition and an upgrading of the translator's role** and the acknowledgement that it is the translator who has the capacity of making a major **contribution to multilingual terminology work**. Such appreciation may then lead to the allocation of time and money to terminology work.

A re-evalution of the translator's position also implies that the terminologist should be seen in a less idealistic way, i.e. in the light of the reality of technical comunication. By defining the roles more realistically and acknowledging the translator's know-how in actual language use, the dispute over competencies could turn into fruitfull co-operation and the terminologist could occupy a more satisfying position. A second implication is that technicians need to be sensitized to linguistic considerations, so as to better appreciate and support terminology work. It is against this background that tools may step in to promote more efficient terminology management and the more consistent use of terms.

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