CHAPTER SEVEN

Writing for international audiences

From Kirkman, J (1992)
Good style: writing for science and technology
London: SFN Spion, pp 136-156
7.1 THE NEED TO ACCEPT RESTRICTIONS ON LANGUAGE

The theme of this book so far has been the need for technical writers to write accurately, directly, and sensitively - with sensitively meaning 'with due attention not only to the accuracy but also to the manageability, readability and acceptability of what they write'. I have stressed that this entails using language flexibly, selecting from the widest possible variety of vocabulary and structures just the right language to give the desired meaning, balance and tone. In particular, I have condemned the distorting effect produced by efforts to strait-jacket technical ideas entirely within impersonal, passive, past-tense constructions.

But there are circumstances in which it can be beneficial to restrict the forms of English used in writing. In documents that are to be read mainly or largely by people for whom English is a foreign language, careful control of the range of language can help the readers considerably.

For convenience, in the rest of this chapter, I shall use the abbreviated terms 'native readers' and 'foreign-language readers' to save repetition of the lengthier descriptions 'readers who are native speakers of English' and 'readers for whom English is a foreign language'.

Native speakers of English must recognize that delicate distinctions of meaning or subtle shades of tone may not be recognized by foreign-language readers. Foreign-language readers may not understand that the phrase a novel technique is intended to convey more than that the technique is new; they may miss the intended implication that it is ingenious, rather clever and interesting as well as new. Foreign-language readers may find it difficult to recognize that the statement production is to all intents and purposes static, tending if anything to decline is intended to mean 'production is falling slightly'. They can be forgiven for not knowing that it could be said that usually is a self-protective way of saying 'I think': the use of could certainly does not imply a particular condition. And they are almost certain to have difficulty in grasping the meaning of the sentences below - most native readers do, too:

The contribution of the series resistance of the electrolyte towards dissipation factor decreases with decrease in capacitance (for the same case size), therefore there are lower losses in capacitors with the higher rated voltages.

Since the degree of concavity is an inverse function of the degree of separation, and capillarity influences its height without altering its basic character, it follows that 'capillary manifestations in concave variants' is the correct description and prediction (generalization) of the character and behaviour of a sinal fluid level, and that these fluid levels are co-variant with the characteristics of space at the level of sinal pooling in all erect positions of the skull.

Authors may think they are showing a praiseworthy command of English if they make extensive use of statements intended to imply more than they say on the surface; or if they make extensive use of verbs such as should, would, could, may and might to impute varying degrees of certainty; or if they make extensive use of complicated sentence patterns. But extensive use of these features of language is not likely to impress foreign-language readers. For such readers, these features are more likely to cause difficulty and confusion. For effective international communication, especially for communication in commerce, industry or research, it is wise to restrict the range and the complexity of the English used.

Indeed, it is possible to restrict the English used in written documents so carefully that the documents can be 'read' by people who do not truly 'understand' English at all. These people do not 'read' English: they simply recognize patterns of familiar symbols, or marks and lines on paper. Yet, they can be taught to work efficiently from documents written in this restricted range of symbols, in this 'controlled' English (described in section 7.4). There are obvious commercial advantages in being able to distribute internationally just one controlled-English version of a piece of information, instead of having to publish many versions in different languages.

Of course, it is necessary to use a complete range of English to express complex or abstract ideas. Controlled English can cope with commercial and technical information like installation instructions, maintenance and repair instructions, operating procedures, and various types of descriptive writing. Controlled English can not cope with theoretical discussions, arguments about data, or with very abstract analyses. Consequently, there is much new technical information that manufacturers would like to distribute world-wide in just one version, but that controlled English cannot accommodate. For that information, translation is necessary. Nevertheless, even if we have to present complex information, we should keep the principles of control clearly in mind as we prepare to communicate with international audiences.
7.2 WRITING FOR 'EXPERT' READERS

In international communication in commerce, industry and research, there are three broad groups within the audience for information in English. For convenience, I shall call them the expert group, the student group, and the no-English group. I am not discussing 'English for tourism' or the development of communication skills for general social and cultural activity, which would introduce other groups with other needs and motives.

The expert group is probably the largest of the three. It consists of:

1. people who want to read international journals and books about science, technology, medicine, computing, commerce, legal matters, or other professional subjects in English;
2. people who are working with internationally available complex equipment, for which the support documentation is in English;
3. people who are involved in international commercial activities, in which the common language used is English.

These people read books or listen to lectures in English because they want to add to the expertise they have already in the subject-matter of the books, the operation of the equipment, or the activities of the international organizations with which they are connected. They may have learned their fundamental knowledge in their own language or in English. For many, the specialist vocabulary they have learned is the same in English and in their native languages. Those who are not so fortunate have to learn the equivalent specialist words in English and their own languages. This is hard work, but it is not usually confusing.

There are usually reliable direct translations between the two languages. For expert readers like these people, it is not usually the special terminology in English that causes trouble. It is the 'ordinary' language in between.

Specialist terminology, and 'the ordinary language in between'

Let me stress the importance of 'the ordinary language in between' by inviting you to read through two examples from technical writing in French. In the first example, even if you know no French, and even if you know little chemistry, you will be able to recognize many of the specialist terms:

1. Décomposition du maléate de diméthistène à l'état solide
   1.1 Enchantillons

   Afin d'éviter une décomposition trop rapide et incontrôlable du maléate de diméthistène, ce dernier est mélangé avec de la cellulose microcrystalline dans les proportions (1 + 4). Des échantillons de dimension différente sont ensuite préparés, en fonction de chaque test de stabilité.

   1.2 Conditions de conservation
   1.2.1 Influence de la température, de l'humidité relative (hr) et de la lumière

   Des échantillons de 500 mg sont distribués dans des piluliers de 18 ml en verre blanc et conservés à l'abri de la lumière à 65°C et 70% hr, 55°C et 60% hr, 40°C et 60% hr, ainsi qu'à température et humidité relative ambiantes, à la lumière du jour. Pour l'analyse, un échantillon est repris par 3 ml de méthanol, agité et centrifugé.

   In the following example, not so many of the terms are immediately recognizable; but once you have learned from your dictionary that donnée means 'data', ordinateur means 'computer', traitées means 'processed' (traitement de texte = word-processing), le bottin means 'telephone directory' (or 'phonebook'), and clavier means 'keyboard', you can begin to make some sense of the text:

   DONNÉE
   Ce sont simplement les informations fournies à l'ordinateur (données d'entrée) ou encore les données reçues de l'ordinateur (données de sortie ou traitées).

   Ainsi si je prends au hasard un certain nombre de noms et d'adresses dans le bottin et que je les rentre en mémoire de l'ordinateur (en frappant sur le clavier), j'obtiens l'ordinateur en données. Si je lui demande ensuite de me trier ces données par ordre alphabétique (ce qu'il peut faire sans grande difficulté) j'obtiens des données traitées.

   Although consulting a dictionary is a tedious task, gradually we assemble reliable definitions for individual words: échantillons means 'samples'; mélangé means 'mixed'; pilulier means 'pill-maker'; alimenté means 'fed', and so on.

   We are alerted by the dictionary to possible pitfalls. In the first example, verre blanc does not mean 'white glass' but 'plain glass'. In the second example, trier does not mean 'try' but 'sort'. These are what linguists call faux amis, 'false friends', words that look as if they will mean the same in two languages, but actually do not.
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(Actually it is itself a 'false friend'. A French reader who did not have a good command of English might be tempted to think that actually means the same as the French actuellement, and would interpret the last sentence of the previous paragraph as 'currently (or at the moment) they do not'.)

But after we have obtained equivalents in English for all the main French words, our major problems start. We have to interpret 'the ordinary language in between'. In the heading of the first example, we have to deduce the precise meaning of the preposition à. The dictionary tells us it can mean 'to, into, at, on, during, till, until, in, by, per, from, out of...'. (There are 37 entries, occupying more than a page of small print, for à in Robert & Collins Dictionnaire Français – Anglais, Anglais-Français. So, does à l'état solide mean 'to the solid state' or 'from the solid state'?)

The dictionary tells us that ainsi means 'in this way' or 'thus'; and ainsi que means 'as' or 'just as'. But when we try to understand the expression ainsi qu'à température et humidité relative ambiantes, the dictionary meanings do not seem to fit together to make good sense, especially when we try to relate the ainsi... group to the rest of the sentence.

As you can see, it is not the main technical terms that are our main source of difficulty; our main sources of difficulty are the structural words and the structural signals (like word endings) that are vital indicators of how the main words are supposed to be related to one another.

When we are writing technical texts for distribution throughout the world, it is easy for us to overlook the distinction between expertise in a technical subject and expertise in English. It is salutary for us to be reminded of the difficulties we face when we are confronted by a text in a language other than English.

Certainly, we can usually assume that an expert audience will have little difficulty in understanding the established core of specialist terminology in our subjects. (I am well aware that it is not easy to describe 'the established core' exactly, and I agree that writers should err on the side of explaining slightly too much rather than slightly too little.) But we must remember that, even for expert audiences, the most frequent causes of difficulty are not single specialist terms but complexities of sentence structure, complex verb forms and apparently common English words and phrases that native speakers of English use almost without thought.

Structural complexity
Consider, for example, the following paragraph (the original was a continuous text; I have numbered the sentences to make discussion easier):

Sentence 1 In such a case, the program would be run once and provide one set of results.
Sentence 2 In fact, it is the simplest form of program possible except for one which does not have a repetitive loop.
Sentence 3 To make the program more useful still, we should have to put in an input section in which we could read in different sets of values of A and B.
Sentence 4 This would necessitate the use of another loop.
Sentence 5 We might then decide to add the facility of changing the range of X and the X increment.
Sentence 6 This would introduce another input step and another loop.
Sentence 7 The possibilities are endless.

People who read this text must know a great deal about computing already, otherwise they would not be reading it. For them, specialist words like program, repetitive loop, input, and increment are not likely to cause difficulty. Much more difficulty is likely to come from the mixture of positives and negatives in the second sentence simplest... except... not. More difficulty is likely to come in the third sentence from the phrase more useful still and from the shades of meaning of should and could. More difficulty is likely to come from the optional use of might in sentence 5. And some will find it difficult to comprehend the final idiom the possibilities are endless.

Again, in the following extract, the main source of difficulty is not likely to be the specialist terminology:

At full loadings the output voltage and current are the combination of two components in quadrature, one from the secondary winding of the transformer T.2 and the other from the secondary winding of the transformer T.1. With this circuit, if for a given value of load resistance R, the reactance of the transformer T.2 is minus R and that of T.1 plus R, then the load current of T.1 is the reactance current of T.2 and the load current of T.2 the reactance current of T.1, thus the former leads the supply voltage by 45° and the latter lags by 45° and the two load components are thereby 90° displaced. The output has a two phase character, whilst the input current is in phase with the supply voltage.

In this example, the greatest source of difficulty, I suggest, is the unnecessary complexity of the sentence structure.

The following examples again show difficulties arising not from the specialist vocabulary but from thoughtless writing. Here, the examples show writers not recognizing the difficulties caused for foreign-language readers by informal phrases like will remain tied up:
If all aircraft are stored with tanks two-thirds full, vast quantities of fuel will remain tied up for long periods.

The X Doppler system is thrown in mainly to...

If the system does not come up with your requirements...

The suggested delivery dates will be tight.

...but since the X system is quite new...

(meaning entirely)

You should be able to identify the programs that are lifted directly from the Pascal system.

At the end of the test, the connection between the two modems is dropped

In this section so far, I have mentioned three ways in which native-English writers produce text that presents difficulties for foreign-language readers:

- by creating complex sentence structures;
- by creating complex verb forms, especially forms using auxiliary verbs like should, could or might;
- by using informal, ‘colloquial’ language.

Elsewhere in the text, I have stressed the ways in which various other features of style create difficulties for foreign-language readers. To ensure that all those ways are gathered together in this chapter, too, here are some more examples (with references to the pages where the features of style have been raised previously):

Use of ‘fashionable’ words that have several meanings
(pages 25 to 27)

...because of the enhanced risk associated with the supply of X.

This enhances the revenue potential of aircraft A by several...

...the turn-around time of aircraft B is enhanced.

Is an enhanced risk an increased risk or an improved (and therefore reduced) risk? To enhance the revenue potential of an aircraft is to increase that potential; to enhance the turn-around time of an aircraft is to improve (and therefore reduce) the turn-around time. These examples cause native readers to stop and think; for foreign-language readers, even expert translators, they are considerable obstacles.

A related cause of trouble is inconsistent use of terms. I have a manual that switches confusingly between fixed disk and hard disc to describe a single unit.

Another form of inconsistency is shown by this example:

Entering the command, ABC7, in the XYZ domain causes you to leave the XYZ domain and enter the ABC domain.

In computing, enter is used to express at least four meanings:

- to type;
- to press a key (Enter or Return) to transmit to a file the data you have just typed;
- both to type in and to press a key to transmit data to a file;
- to move into (as in ‘enter the ABC domain’).

How should translators translate enter? By using just one word in their own languages (and thereby ignoring/compounding the confusion), or by attempting to identify the exact meaning of each occurrence of enter, and supplying a different, explicit word for each occurrence?

Be consistent in your choice of terms. Choose one word for the activity of typing, and use it consistently to express that activity. Choose one meaning for the term enter, and use enter consistently to express that meaning.

Pre-modification
(pages 32 and 33)

Here is an example of a complete sentence:

Correcting transfer voucher procedures are in Chapter X.

That example of a complete sentence can be condemned on several grounds: abnormal word-order, excessive pre-modification, pre-modification with nouns, pre-modification instead of use of a more comfortable prepositional construction. I had to re-read the sentence several times before I worked out that it meant:

Procedures for correcting transfer vouchers are in Chapter X.

I suspect that foreign-language readers would have to think very hard about how to translate that awkward wording.

Mis-related phrases and clauses
(pages 75 to 77)

When emptying the system, filtrate from tank X can be fed to the top of reactor Y.
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By pressing ES, a list is obtained.

To monitor the conversation, the loudspeaker must be operated.

Foreign-language readers, decoding in accordance with the rules of English grammar that they have been taught, are more likely than native readers to find those expressions confusing, precisely because they have been taught the formal rules of English grammar. Often, they are able to see and explain a mis-relation which native readers, many of whom have never been taught the rules of English grammar, are dimly aware of but cannot explain.

Omission of punctuation
(pages 78 to 83)

Label your volume when prompted with an easy-to-remember name of up to 11 characters.

(when prompted, with)

Selection is controlled by three colour enable lines.

(colour-enable)

...are responsible for customer collections.

(collections of customers? collections by customers? customers' collections?)

Expressions such as the first two of these examples cause a slowing-down of a translator's activity. Expressions such as the last cause a complete stoppage.

Tone
(pages 84 to 91)

You are strongly recommended to attend an ABC system generation course, if possible; it will probably save you a lot of time (and possibly heartache).

To recognize the difficulty created by this attempt at humour, it is instructive to put yourself in the position of a foreign-language reader who has to look up heartache in a dictionary.

If you were a French reader, you might look up heartache in your Robert & Collins Dictionnaire Français-Anglais, Anglais-Français. You would find that the equivalent words in French are given as chagrin and douleur. So you would interpret heartache as having the same meaning as is attached to those words in your French context. But what are the meanings attached to those words in a French context? At the other end of the French-English, English-French dictionary, chagrin is defined as grief, sorrow, distress, and douleur as pain, grief, distress.

Did the writer seriously wish to suggest that a course on system generation would cause grief, sorrow, distress, or pain? Almost certainly not. (If he did, his colleagues responsible for the course would have good cause for resenting his published comment!) Most native readers are able to detect his intended nuance of jocularity; but foreign-language readers need a very high competence in English to pick up nuances of that sort. And even if they could, would they feel that it was appropriate to have jocular asides in a technical manual? Attitudes to humour vary widely in different cultures.

Differences between British English and American English

Writers in English must even take care about the words and expressions they use in communication between England and the USA. The Englishman who is visiting a laboratory in the USA and is asked 'What time do you have?' will find his reply 'Not much, I'm afraid' greeted with some confusion. His answer should be based on a quick reading of his watch - 'Ten minutes past three' or 'Ten after three'.

It is important to remember that there is not just one English language: there are (at least) British English, US English, Canadian English, Australian English, and South African English. These languages are marked principally by similarities; but there are many differences, too. If we want high reliability in the transmission of information, and if we wish to avoid causing offence by creating inept tone, we must ensure that all our texts are written in the language of the target audience, or that the target audience is fully alerted to the points of difference in the code that is being used.

It is interesting to recognize that it is not the big and obvious differences that cause difficulties in transatlantic communication. For example, pronunciation and intonation are obviously very different in British English and US English; but after a tuning-in period, we do not often find that pronunciation and intonation differences cause complete breakdown in communication.

There are some differences in labels that must be learned: for example:

US English                              British English
faucet                                 tap
ground                                 earth
thumb tacks                             drawing pins
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antenna
hood
in back of
initiate your main lamps

aerial
bonnet
behind
switch on your headlights

but we soon learn these, because if we do not, communication stops.

Much more dangerous are apparently common words or idioms with
which we assume everyone on the receiving end is familiar: commu-
nication goes on, with participants unaware that there are differ-
ences of interpretation between transmitter and receiver:

US use alternate equipments
(British: alternative)

(To a British reader, the usual meaning carried by alternate is ‘first one,
then the other, then back to the first’.)

US Drive on the pavement, walk on the sidewalks.
(British: Drive on the road, walk on the pavement)

US The regular operator
(British: The usual/ordinary operator)

US If target is a regular file, its contents are destroyed.
(British: a normal file)

For British readers, the primary meaning carried by regular is ‘recur-
sing at fixed intervals or in a repeated, consistent way; in accordance
with a habit, order, rule, or custom’. Accordingly, British readers
would interpret regular food in the next example to mean ‘food taken at
consistent and evenly spaced intervals’:

In cases where the patient cannot eat enough, supplements of X in
liquid form, taken with regular food, will provide the calories and
protein required...

The American writer did not intend that meaning. Her intention was to
speak of ‘normal, usual’ food.

Of course, many readers become familiar with differences of use on
the two sides of the Atlantic; but if readers have not had much ex-
posure to the ‘other’ form of English, there is considerable danger of
native readers, let alone foreign-language readers, missing a difference
of meaning.

We need to be on the look-out not only for differences in the
meanings of single words but also in the implications of larger groups.

To a British reader, the following extract looks like a typical piece of
passive, impersonal, technical writing, meaning ‘When (while) format-
ing is taking place, you will see the prompt’:

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When formatting is done, you will see the > prompt.

In fact, the American writer meant:

When formatting has been completed, you will see the > prompt.

In British English, the presence of Have at the start of a sentence
always signals the beginning of a question. It is therefore a surprise for
a British reader to read:

Have your assistants put the pipe squarely into the flange...

Have the recycle systems regenerated. Then,...

Unless he or she is familiar with this common American construction
meaning ‘Ask your assistants...’, ‘Ask the operator to...’, ‘Ensure
that...’, ‘Get the recycle systems regenerated’, the British reader may
well wonder if a question mark has been omitted by error. Worse, to a
British reader, there is an air of authoritarian compulsion about:

Have them inspect the sample first.

The American writer’s meaning was:

First, show them the sample.

The sentence was intended as the neutral statement of the beginning of
a procedure. No authoritarian tone was intended.

There can be difficulties over the use of abbreviations, too: for exam-
ple, over the American use of # to mean number, over the European
use of the comma as a decimal point, and over the American way of

So, for expert readers overseas, even in the USA, writers should
constantly keep in mind the nature and range of English likely to be at
the disposal of the audience. It will almost certainly be desirable to
limit the language forms used and to make explicit many nuances of
meaning and tone that could be expressed to native readers by subtle-
ties of structure or vocabulary.
7.3 WRITING FOR STUDENTS

In the student group within the international audience, I include all people who are studying English itself or who are using English as the medium of study of commercial, scientific or technical subjects. These people have not yet learned the fundamentals of their subjects, even in their own languages. They may have to build up in English the whole conceptual framework underlying each special term. When we plan to write or speak to such readers, we must make great efforts to give clear definitions and explanations.

This does not require different skills from those we need for writing for expert readers. The task differs more in degree of difficulty than in kind. The main difficulty is still to control carefully the complexity of the structures created. We must make even greater efforts to control the language used and the rate at which information is unloaded. The greatest difficulties for student readers are again caused by difficult phrases, complex sentences and shades of meaning expressed by would, should, may and might.

7.4 WRITING FOR READERS WHO DO NOT UNDERSTAND ENGLISH: USING 'CONTROLLED' ENGLISH

When we come to present information to the third category in our audience, to the no-English group (the group who do not know how to speak or write any English), we have to exercise the greatest restriction and control. Yet, and this may seem strange, provided we know that these readers have been trained to recognize the words (symbols) we use, we can be more confident about communicating clearly with these readers than we can with either of the other groups. When we communicate with experts or students, we can never be absolutely sure that we have judged accurately their ability to understand us. In contrast, if we know our readers have been taught to recognize the symbols we use, we can be confident of clear communication.

Several 'controlled' versions of English have been developed, by large international companies like the Caterpillar Tractor Company, Digital Equipment Corporation, L.M. Ericsson, IBM, Eastman Kodak, and Rank Xerox. All are based on an original idea worked out by the Caterpillar Tractor Company of Peoria, Illinois.

The Caterpillar Tractor Company distributes tractors and heavy earth-moving equipment throughout the world. It supports its machinery with maintenance and repair documents, and because this has to be done in many countries, the company used to provide the documents in many languages. But duplication of documents in many languages is expensive, so the company looked for alternative ways of presenting its information.

Caterpillar research workers decided that it should be possible to use a single, internationally understood set of symbols to convey much of the information they had to transmit. And having decided this, they explored the possibility of using English words as this set of symbols. They produced a list of 784 words as a central core of symbols, plus a list (with many illustrations) of names of parts of Caterpillar equipment.

The research workers found that they could express all their service and maintenance information using this vocabulary alone in a carefully controlled range of simple structures. They found, too, that in 30-60 hours they could train operators, who previously knew no English, to recognize the meaning of the documents written in this way. Though
the operators did not 'understand' English, they could work efficiently on the basis of the information drawn from the controlled-English documents.

The Caterpillar Tractor Company named its restricted version of English 'Caterpillar Fundamental English'. It is marketed now as ILSAM – International Language for Service and Maintenance – by M. and E. White Consultants (world-wide agents) and as BASIC 800 by Smart Communications Inc. (agents within the USA only).

The principles for producing a restricted or controlled version of English such as ILSAM or BASIC 800 are easy to grasp. The variety of words used must be strictly limited, and each word must have one meaning only. For example: right is the opposite of left, correct is the opposite of wrong. Drop is a noun meaning 'quantity of fluid that falls in one spherical mass'; it is not used as a verb meaning 'to fall' or 'to release'; and it is not used as a noun, as in a drop in pressure – that is a decrease. The word over is restricted to the single meaning 'above', as in placed over the valve; it is not used to mean 'more than' as in produces over 10 watts, or 'during' as in over the three days, or 'finished' as in that the emergency was over.

Synonyms are avoided: from several words that have approximately equal meaning, only one is chosen for use. For example: below, under, beneath and underneath all have similar meaning. ILSAM uses only under. Also, wherever possible, the word with the widest international recognition is chosen for use: assistance is used, not help.

The number of verbs is kept to a minimum. This is achieved by use of verb-noun combinations as much as possible: make an alignment is preferred to align. This has the virtue of reducing the number of verbs to be learned and of reducing the number of irregular verb forms to be used.

Statements are made as short and positive as possible.

Not: The control unit, duplicated for safety, has a low resistance.

But: The control unit has a low resistance. There are two units for safety.

Repetition replaces reference back, and explanations are carefully sequenced in steps. Tense, voice and mood of verbs are carefully restricted. Wherever possible, sequences of statements, plus words like before, after, last, first, then, are used instead of past and future verb forms.

Writers can use all the four main types of sentence structure in English:

1. statements, descriptions or explanations;
2. instructions or commands;
3. combinations of conditions with either descriptions or instructions;
4. questions.

Statements can have qualifying words added, but not too many. If necessary, adjectives can precede both subject and object. The first sentence below has no adjectives: the remaining sentences add more:

The washers prevent leaks.
The network uses reed switches.
The control system has two complete stages.
Twelve GV-1 groups are normal in group selectors.

Heavily qualified statements are avoided.

In instructions or commands, each sentence contains just one instruction:

Not: After stopping the program, load the data into the buffer store.
But: Stop the program. Load the data into the buffer store.

Not: Using program 6, send X to Y.
But: Use program 6. Send X to Y.

Clauses giving explanations, conditions and indications of time can be combined with descriptive statements or instructions:

Reason clause: Because you must make the loop first, the linkage is important.
Time clause: When the work is complete, put the test line into the cable duct.

Condition and instruction: If the error is larger, increase input at X.
Condition and statement: If the interval is less than three seconds, the sequence is wrong.

But these combinations must remain manageable: one qualifying clause per statement is a good rule.

Questions are constructed as simply and directly as possible:

Can the door open freely?

Of course, non-English-speaking operators cannot just pick up and read documents in ILSAM or any other controlled version of English, however carefully the documents are written. A training programme is necessary. In the training programme, a bilingual instructor helps the operators to recognize and understand the significance of the limited
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vocabulary and the limited range of patterns. The instructor gives definitions and explanations in the native language. At no point is the learner required to speak or write English. Caterpillar have found that a course lasting 30-60 hours is normally enough to enable 'readers' to work competently from ILSAM documents.

An important feature of this type of controlled English is that it is not distorted or artificial. The vocabulary and structures it uses are selected from those used daily by native English speakers. Documents in this language are therefore entirely acceptable to native English readers. Indeed, when the Caterpillar Company published the first service literature in its restricted language, the difference was not detected by native English readers!

Here are some examples of texts re-written in 'Ericsson English' - a controlled version of English produced by the University of Wales Institute of Science and Technology for the L.M. Ericsson Telephone Company, Stockholm [13, 14, 15]. The verbs are in italic. The original texts use relatively complicated verb forms such as have been positioned or being untwisted, and the auxiliary verbs may and should. Passive contractions and auxiliary verb forms are major sources of difficulty for readers who are not proficient in English, and they are not necessary in simple instructions and explanations. Note, too, how it is possible to have different re-written versions; use of controlled English does not mean that writers have no choice in the language they use.

1. Original text

Stripping of cables for normal magazines

When the cable has been positioned on the cable shelf for normal magazines, use measuring rib 1007478 to mark where it is to be stripped. Stripping is to take place immediately before connection work as the twisted groups run the risk of being untwisted if the cable is stripped in advance.

One re-written version

Stripping of cables for normal magazines

Put the cable into the correct position on the cable shelf. Use measuring rib 1007478 to make a mark on the cable. The mark shows where to start stripping. Strip cables a short time before connecting, to prevent untwisting of cable elements by accident.

Another re-written version

Stripping of cables for normal magazines

Make sure that the cable is in the correct position on the cable shelf for normal magazines. Use the measuring rib 1007478 to make a mark on the cable, so that the mark shows where to strip the cable.

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Do not strip the cable until you are ready to start connecting. If you strip the cable before you are ready, you can untwist the twisted groups by accident.

2. Original text

In order to be able to keep the time schedule, it is important that the preparations are well made and carefully thought over (items 3.2 and 3.3), otherwise a waste of time will easily arise. As is evident from the suggestion for time schedule below, several different tests may be in progress simultaneously. Just how long a time each test will take is dependent on local circumstances, but no test, with the exception of certain APZ tests should take more than 8 hours unless interferences occur.

One re-written version

We make careful preparations according to Sections 3.2 and 3.3, so that we use the period of the operation test in the best possible way. Figure X shows a plan of the length and sequence of the tests. The length of each test depends on local conditions. Several tests can operate at the same time. If we do not find faults, most tests operate for less than 8 hours. Some APZ tests operate for more than 8 hours.

Another re-written version

Important! Be careful when you make the preparations for the operation test (Sections 3.2 and 3.3). If you are not careful, you will not use all the available time successfully. Figure X shows that several different tests can happen together. The length of each test depends on local conditions. If faults do not happen, the maximum time necessary for a test is normally 8 hours. Some APZ tests need more time.

Even if a company feels that it cannot use a single controlled-English version of its document(s) in all countries of the world - that is, that some translations are still wanted for diplomatic or technical reasons - the creation of controlled-English text(s) still has value. Since a controlled-English text has been written very clearly, with each word confined to just one meaning, it is ideal source material for translation. The translator can rely on the definitions of words, and finds the simple sentence-structure relatively easy to convert into comparable simple structures in the target language. Indeed, a reasonably accurate 'base' translation can be produced easily by computer, leaving human translators to add the expert touches - to add balance and polish by making the adjustments of word order and style required by the target language.
Principles similar to those used in creating ILSAM have been used to create controlled versions of English for international oral communication. For example, there are standard patterns of English for international aviation, and a Standard Marine Navigation Vocabulary has been produced by IMCO (Inter-governmental Maritime Consultative Organisation) [26].

The aim of the IMCO Vocabulary is to encourage all navigators to communicate effectively with one another by making them use an agreed range of words and phrases with agreed meanings. The Vocabulary suggests words and phrases for use in a variety of navigational activities. The words and phrases are arranged in groups under 21 activities, such as anchoring, fairway navigation, pilotage, radar transmission and fishing. There is a glossary explaining difficult terms, and an introduction describing how the Vocabulary should be used.

The design and use of controlled versions of English primarily (though not exclusively) for oral communication raise problems related to speaking and listening that do not concern us here. However, readers may be interested to explore the potential of controlled versions of English for international communication of commercial, scientific, and technical information in both speaking and writing. There is considerable scope for extension of the principles already used in technical documentation and in aviation and maritime activity.

7.5 ICONS

Perhaps, since use of words causes so much difficulty in international communication, we should abandon words wherever possible, and use icons instead.

It is impossible to make anything but very simple statements by stringing icons (images) together. Certainly, we shall not in the near future be able to use iconography in its present state of development to express complex descriptions, explanations, and instructions in our manuals or on-screen texts. But icons can be used as graphical symbols for objects, actions and events, and they can be used effectively in manuals and on screens to help readers with quick recognition and identification of information. For example:

- to help readers identify recurring categories of information (for example, recurring blocks of command-descriptions or operating instructions in chapters of a manual);
- to help readers identify quickly the content of files or other optional items listed in an on-screen menu;
- to help readers identify quickly the activities that will be produced by various commands to a computer;
- to help readers understand an event that has happened (for example, the linking of two computers).

Preferably, icons should be instantly comprehensible without explanation. It is acceptable to expect readers to be prepared to learn the significance of new icons, just as new words have to be learned when we begin to read about a new subject. But to be successful, icons must have qualities that make them easy to learn and remember. What these qualities are is still the subject of debate. As I write, the International Standards Organization is engaged in lengthy discussion about how to produce icons that will be recognizably internationally.

One problem is that ‘familiar’ objects do not have the same form in all countries and cultures. For example, which of the following icons is closer to your idea of a waste bin?
Which of these icons is closest to your idea of a printer?

I have no doubt that we shall gradually have to include more and more icons in our presentations of information, especially in our on-screen presentations. In general, to make accurate, clear statements with icons, we shall have to think along much the same lines as we use in planning accurate, clear writing. But there is an obvious visual element in 'good style' for communicating with icons, and discussion of that element would take us beyond the bounds of this book.