Appendix

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Useful elements of style

1. Main features of technical english

Impersonal and objective style

Passive voice --> *e.g. The experiment was conducted.*

Infinitives + passives to express intention of purpose --> *e.g. Their theory is to be published soon. / The results are not intended to be revised at once.*

Impersonal pronoun *one* (BrE) instead of personal forms and as an alternative to the passive --> *e.g. One may wonder about the feasibility of the project.*

Tentative or uncommitting verbs to express personal conclusion (as a sign of modesty) --> *e.g. It seems / appears that the previous hypotheses were wrong.*

Predominance of simple verbal tenses (especially of present and future) and little use of progressives --> *e.g. 2 + 2 equals 4, Satellites turn around planets, Water molecules contain oxygen and hydrogen in a 2:1 ratio.*

Specific vocabularies

Technical: Universal character. Words of classical origin (Latin and Greek) recognisable in every language --> *e.g. solar, retina, rotor, axis, lens…*

Polysemically technical: different meanings for a single term according to the various fields and disciplines --> *e.g.* the meaning of *fin* differs in Zoology and Aeronautics.

Coinage of new terms **by composition** (fusion of two words) **and derivation** (prefixation & suffixation) --> *e.g. thermocouple, push-pull rod, high-octane, intravenous, sulphide…*

Monosemy or univocal semantic relationships within the text. Virtual absence of metaphor (although the origin of most polysemically technical terms is metaphorical)

Linguistic economy

Tendency to nominal pre and postmodification to compress the message --> *e.g. movable horizontal control surface, lighting for identification and avoidance of collision.*

Abundance of contracted passives & conditionals and complex sentences --> *e.g. If calculated with graphic methods…/ calculated with graphic methods…*versus the uncompressed version *If / When it is calculated with graphic methods…*

2. Formal and informal registers

Register can be defined as the style, tone or way of addressing an interlocutor / reader. Within each specific language or code (technical-scientific, legal, journalistic, etc.) there exists the possibility of expressing the message **formally** or **colloquially**. Let us see some factors determining each choice:

Use of contracted or complete verb forms

e.g. The experiment didn´t prove the theory (informal = i)
The experiment did not prove the theory (formal = f)

Use of personal pronouns versus alternative impersonal forms (except in letters)

e.g. In this talk I want to discuss…(i)

The experiment I made consisted of…(i)

This talk is intended to discuss…(f)

The (conducted) experiment consisted of…(f) / An experiment consisting of…was

conducted…(f) / etc.

Choice of formal or colloquial synonyms

e.g. The experiment was made (i) / conducted (f)

This paper tries to find out (i) / study, determine (f)

Choice of Latin or Saxon roots

e.g. worry (i) versus *preoccupy (f), carry out (i)* versus *implement / conduct (f), etc.*

Choice of generic (broad) or specific terms

(More formal and specialized texts require more specific terms)

e.g. show (generic) / prove, demonstrate (specific)

say, tell (generic) / narrate, describe, account for, detail, argumentate (specific)

Use or omission of conversational resources (= always informal --> suitable for an oral presentation but not for a formal written text)

_ Tag endings --> *e.g. isn´t it?, does it?, etc.*

_ Crutches --> *e.g. Well, you know, like* (with linking—not comparative—uses), etc.

_ Closure formulae in expository texts (papers, essays, etc.) --> *and that´s it / all!*

3. Essential grammar

3.1 Complex sentences

Complex sentences are impersonal sentences (*i.e.* with a non-conjugated verb) used to economise language and provide the style with more agility and variety. They may substitute full-length time, manner and conditional sentences, and can be formed with the *gerund* or the *past participle.*

Gerund complex sentences normally indicate *method or procedure*, whereas pastparticiple ones emphasize a *state, result, or condition*. There may be also *plaintimesentences* (a gerund after a time preposition), with no other meaning but temporal. Here are some examples contrasted with their non-abbreviated version:

e.*g. After testing / Having tested the mechanism, they…*--> (full-length version =*After they had tested themechanism / Once they had tested the mechanism…*) = TIME SENTENCE

(By) inserting one more link, we can increase the efficiency of the chain--> (full-length = *If we insert onemore link, we can increase…*) = SENTENCE OF METHOD OR PROCEDURE

Designed by the team, this mechanism has proved very efficient.--> (full-length = *This mechanism hasbeen designed by the team and has proved…/ Having been tested by the team…, this mechanism…*) = SENTENCE OF STATE / CONDITION / RESULT

The only *golden rule* concerning complex sentences is that *the subject at bothsides of the comma* separating the two clauses *must be the same.* Otherwise the sentence is either incorrect or ambiguous:

e.g. On testing the mechanism, the crank broke off. -->Wrong : two different subjects

There is, however, a pair of exceptions for which it is allowed to have different subjects without being incorrect:

1) When the second clause contains a possessive adjective referred to the subject of the first clause:

e.g. On testing the mechanism, his predictions were confirmed.-->Of course, for this sentence to be correct, one has to interpret that the person who made the predictions is the same who tested the mechanism)

2) When the first clause includes an explicit passive subject:

e.g. Done the work, the engineers wrote the report.--> There are two different subjects, but the first clause contains a passive one: *The work has been done-->Done the work / The work done* (shortened passive sentences)

3.2 The passive voice

The abundance of sentences in the passive voice is perhaps one of the most salient features of technical English. Nevertheless, the passive voice should be alternated with the active in order to avoid monotonous or stylistically repetitious effects.

When to use it

1) To avoid mentioning the agent or doer of the action, because the action itself is more interesting than who did it. Here we may find the following cases:

1.1 In *process descriptions*

e.g. Finally, fuel and air are mixed in the carburettor.

1.2 In impersonal language: the writer / speaker wants to create some distance between himself / herself and what he / she says. When lack of involvement is desirable; for example, in formal instructions or written announcements, or in the expressions of opinion in academic writing:

e.g. Protective goggles must be worn at the workshop at all times.

2) To emphasize the agent or doer of the action with a "by" phrase:

e.g. The mechanism has been designed **by** *the Chief Engineer.*

Grammar notes on passive constructions

The usual thing is for the passive to be found without an agent. Nevertheless, it can be expressed when necessary, for reasons of contrast or special emphasis.

_ Instrumental agents are usually introduced by *"with":*

e.g. Smoke filled the room --> The room was filled with smoke
   The hammer beat the plate --> The plate was beaten with the hammer.

In English the indirect object of an active sentence can become the subject of the passive construction:

e.g. They gave him the report. --> The report was given to him / He was given the report.

It is possible to build a passive sentence with an intransitive prepositional verb (in principle, only transitive verbs admit the passive):

e.g. The customers paid for the device--> The device was paid for

Some prepositional verbs can be used as intransitive with one meaning and as transitive with another:

e.g. GO INTO:*They went into the room* but *The room was gone into* is not possible
   *Details were gone into during the meeting*is correct

English builds impersonal sentences introduced by "IT" and containing a verb of reporting (SAY) or of mental activity (THINK, BELIEVE, CONSIDER, KNOW…)

e.g. They say the device will work. --> It is said (that) the device will work. --> The device is said to work.

Although theoretically all transitive verbs admits the passive, English usage imposes some constraints or limitations:

Verbs not admitting the passive voice:

TO	HAVE	(meaning		"possess")
TO				LACK
TO	HOLD	(meaning	"with	capacity for")
TO				RESEMBLE
TO				FIT
TO				SUIT
TO BECOME				

When the direct object of the active sentence is a whole clause, the passive does not usually take place:

e.g. They thought (that) the device would fail.

 Incorrect:*That the device would fail was thought by them.*

The passive is not possible when:

a) The direct object in the active sentence is a reflexive or reciprocal pronoun

e.g.   They   write   (to)   each   other.
*   They blame themselves for the failure.*

b) The direct object in the active sentence includes a possessive adjective that refers to the subject.

e.g. He cut his finger. And not: *His finger was cut by him.*