

*Language is like shot silk; so much depends on
the angle at which it is held.*

John Fowles

Special languages and their translation

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What is LSP?

- ▶ What is a special language?

Per lingua speciale si intende una varietà funzionale di una lingua naturale, dipendente da un settore di conoscenze o da una sfera di attività specialistici, utilizzata, nella sua interezza, da un gruppo di parlanti più ristretto della totalità dei parlanti la lingua di cui quella speciale è una varietà, per soddisfare i bisogni comunicativi (in primo luogo quelli referenziali) di quel settore specialistico (Cortelazzo 2007: 8)

- ▶ What characterises special languages?

- ▶ What is the difference between general language and special language?

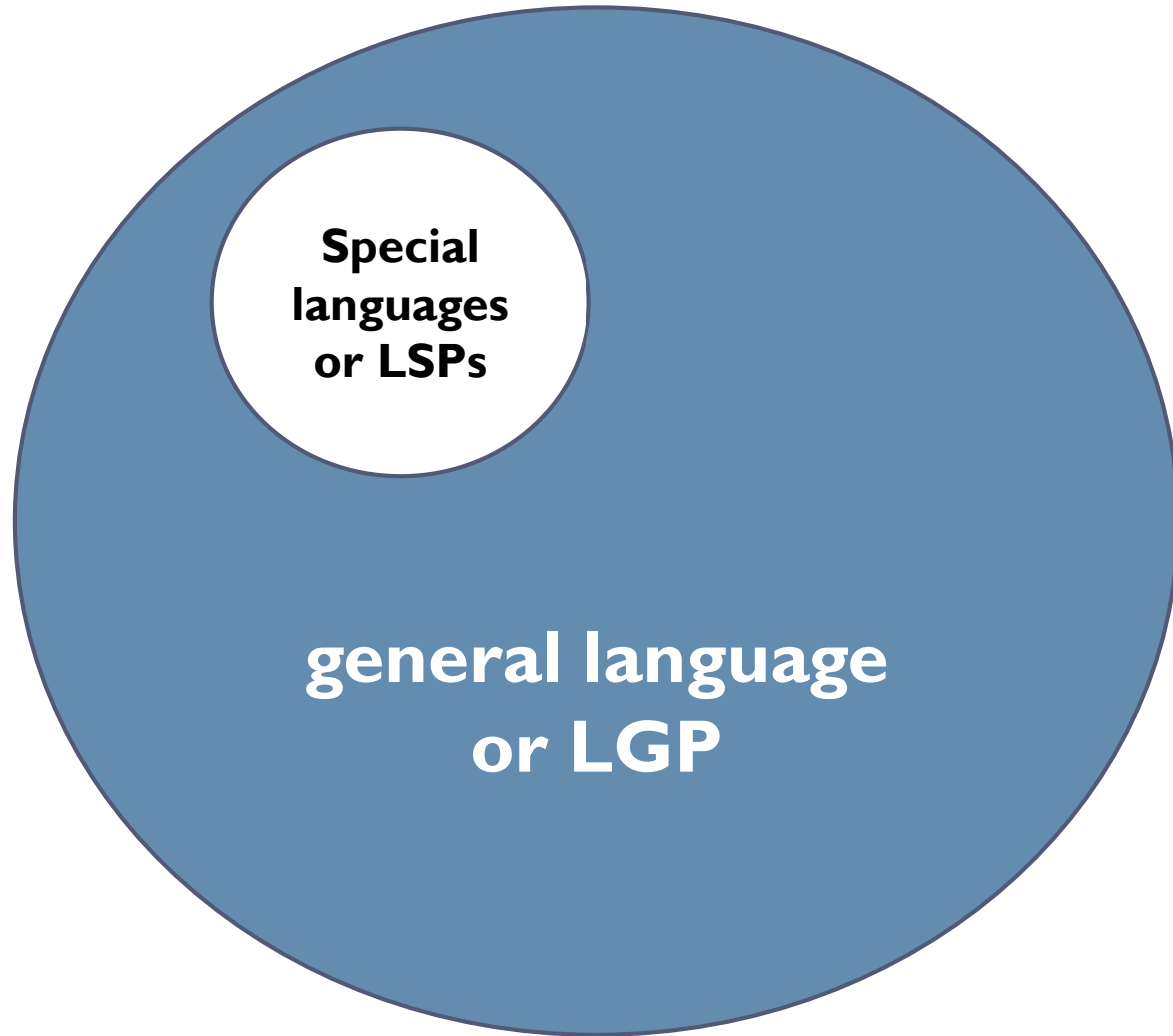


Functional and contextual varieties

- ▶ LSPs: highly specialised languages (e.g. language of physics, medicine, economics, law) with specific lexis, distinctive morphosyntactic and textual features
- ▶ Languages such as the language of politics, advertising, press: no distinctive lexis or traits but borrowings from special languages proper
- ▶ Jargons: languages used by specific social groups, for example the languages of young people, gangsters, students



How are general and special languages related?



A very short history of special languages

- ▶ Originally the focus was on terminology
 - ▶ Slowly special languages were found to have other characteristics as well
 - ▶ Horizontal (different fields: soft/hard sciences) and vertical dimensions (different registers/genres/text types) were described
 - ▶ References:
 - ▶ Bowker Lynne and Pearson Jennifer (2002) “Introducing LSP”, *Working with Specialized Language. A Practical Guide to Using Corpora*, London/New York, Routledge, pp. 25-41.
 - ▶ Cortelazzo M.A. (2007) *Le lingue speciali. La dimensione verticale*, Padova, Unipress (Introduction)
 - ▶ Sobrero A.A. (1993) “Lingue speciali”, in Sobrero A.A. (a cura di) *Introduzione all’italiano contemporaneo*, Roma-Bari, Laterza, pp. 237-277.
 - ▶ Scarpa F. (2008) “Dimensioni di variazione e caratteri generali delle lingue speciali”, *La traduzione specializzata*, Milano, Hoepli, Ch. I, pp. 1-30.
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Clines of specialisation:

- Intraspecialist level (*Physical Review Letters, Cell*)
- Interspecialist level (*Nature, Science*)
- Medium-level interspecialist popularization (*Scientific American – New Scientist*)
- Instruction level: manuals, handbooks and textbooks
- ‘Popular’ level: newspapers, weekly and monthly magazines [(a) in the science pages; (b) in the news sections], TV programmes, websites, blogs

Sci/Tech text type/ Communicative function	<i>Legal texts & standards</i>	<i>Leading-edge knowledge (discovery)</i>		<i>Didactic-instructive texts (integration & teaching)</i>			Selection/Compression	<i>Collective & combinatory knowledge resources</i>		
1 st Order variants: Theory & practice	↓	↓		↓		Selection/Compression		↓		
2 nd Order variants: Information-presentation mode		Content-oriented, simple presentation ↓	High print quality presentation ↓	<i>Pedagogical orientation</i> ↓	Arouse interest ↓			Encyclopedic ↓	<i>Sub-sentence units</i> ↓	
Primary text variants classified by primary function		Standards guides, specifications, patents, patent docs, government regulations	Research & test reports, proceedings, journal articles, monographs, theses, memos, etc.	Journal articles, specialized web resources, etc.	Text-books, teaching materials			Popular science, popular technical articles & books, product info, etc.	Operating instructions, shop manuals, procedures, software manuals, on-line & on-screen GUI, help, machine displays & texted controls, etc.	Encyclopedias, lexicons, data resources
Selection/Compression										
Secondary text variants (Integrated or separate)	<i>Scope, abstract, commentaries, definitions</i>	Abstracts, reviews	Abstracts, sidebars, review articles, reviews	Work-books, posters, etc.	Summaries, reviews, blurbs, sidebars	Reference manuals, reference cards & charts, short intros & tutorials, signage		Reviews, e-entries etc.	Reviews, e-entries, graphs, etc.	
Indicative translation	<i>Gisting, MT, summary translation</i>	<i>Gisting, MT, summary translation</i>	<i>Gisting, MT, summary translation</i>	<i>Controlled language source + higher quality MT</i>			
S/C										

Figure 17.1. Continuum of scientific and technical texts; based on chart from Göpferich (1995). Italics indicate instrumental modifications in the chart.

Features of special languages

- ▶ Exactitude, simplicity and clarity
 - ▶ Objectivity
 - ▶ Abstractness
 - ▶ Generalisation
 - ▶ Density of information
 - ▶ Brevity or laconism
 - ▶ Emotional neutrality
 - ▶ Unambiguousness
 - ▶ Logic consistency
 - ▶ Use of defined technical terms, symbols and figures
- (Hoffman 1984)



Three main criteria

- ▶ Economy
- ▶ Precision
- ▶ Appropriateness

Sager, Dungworth, McDonalds 1980



Features of special languages

- ▶ **Monoreferentiality** need for a single referent (one concept one term)
- ▶ **Lack of emotion** neutral tone
- ▶ **Precision** each term must point to its own concept = referential precision
- ▶ **Transparency** access a term's meaning immediately through its form
- ▶ **Conciseness** reduction in textual surface
- ▶ **Conservatism:** law and business → old forms
- ▶ **Redundancy** made and signed / null and void
- ▶ **Relationship with general language** specialisation of GL meanings
- ▶ **Metaphor in LSP** constitutive and exegetic metaphors
- ▶ **Lexical productivity** specialisation and metaphorisation



Textual features

- ▶ Anaphoric reference
- ▶ Use of conjunctions
- ▶ Thematic sequence – standard and parallel
- ▶ Genres
- ▶ Textual organisation: Move 1 – establishing territory, Move 2 – establishing a niche, Move 3 – occupying the niche
- ▶ Macroacts: stating the purpose, reporting past research, stating the problem, presenting information on apparatus used in an experiment (description + operation), presenting information on experimental procedures
- ▶ Speech acts
- ▶ Argumentative pattern



Syntactic features of special languages

- ▶ Omission of phrasal elements
- ▶ Expressive conciseness
- ▶ Premodification
- ▶ Nominalization
- ▶ Lexical density
- ▶ Sentence complexity
- ▶ Sentence length
- ▶ Use of verb tenses
- ▶ Use of the passive
- ▶ Depersonalisation



Textual features of special languages

- ▶ Anaphoric reference
- ▶ Use of conjunctions
- ▶ Thematic sequence
- ▶ Text genres
- ▶ Textual organisation: CARS model → establishing a territory – establishing a niche – occupying the niche // IMRD model
- ▶ Argumentative pattern

Maurizio Gotti (2006) *Investigating Specialized Discourse Lang*



Readability

▶ **Flesch Reading Ease test**

- ▶ This test classifies text readability on a scale whose highest value is 100. The higher the index the more readable the text. For most standard documents it is advisable to reach a readability index between 60 and 70.

- ▶ The formula to calculate the Flesch reading ease test index is:
$$206.835 - (1.015 \times ASL) - (84.6 \times ASW)$$

where:

- ▶ ASL = average sentence length, i.e. the total number of words divided by the number of sentences
 - ▶ ASW = average number of syllables per word, i.e. the number of syllables divided by the number of words (from *Microsoft Office Word Guide*)
-



Readability: example

- ▶ **Flesch Reading Ease test: 52.8**
- ▶ Passive sentences: 22%
- ▶ Average sentence length: 15.48 words
- ▶ Flesch-Kincaid grade level test: 9.8 (10-12 higher school in the US)



Omission and conciseness

▶ Omission of phrasal elements for conciseness:

- Articles
- Verbs
- Prepositions

▶ Expressive conciseness:

Prefixes and suffixes: *workable metal* → metal which can be worked

Simplification of relative clauses: *pieces of iron left in the rain become rusty* → pieces of iron which are left in the rain [especially if it refers to sth stated in the previous sentence/paragraph]

Avoidance of passives: *compressed air can be used* (air which is compressed). The agent if expressed is placed before the past participle: *computer-calculated result*



Conciseness – cont.d

► Expressive conciseness:

Passive modified by adverb: *an incorrectly-designed bridge*

Verb of relative clause followed by adverbial phrase replaced by *thus/so*:
the results thus/so obtained [the results which were obtained in this way]

Thus to avoid a relative clause: *when the piston is drawn sharply upwards, the air below the piston rises, thus causing the pressure to fall*

Use of *whereby* (by means of which): *cracking is the process whereby kerosene is extracted*

Relative clause turned into an –ing form: *tungsten is a metal retaining hardness at red-heat*

-ing form as adjective: *a moving line*

Adverb + -ing form: *a fast-growing plant*

Object + -ing form: *Malaysia is a rubber-producing country*

Further simplification: *pentagon is a five-sided figure*

Stages of simplification: *an engine which is driven by diesel oil → an engine driven by diesel oil → a diesel (oil-)driven engine → a diesel engine*

Premodification

- ▶ Compare: *a small car-factory vs. a small-car factory*
- ▶ Premodification allows scientists to build more complex sentences
- ▶ Premodification is part of the grammatical metaphor process (nominalization): *a day and night weather observation station*
- ▶ Causes of nominalization are linked to textual construction (easier flow of information from new to given: *It is essential to keep magnetic disks in fireproof safes. This protection of original software, however, is not sufficient. An additional security precaution consists in storing copies at different sites, away from the computer*)
- ▶ Nominalization cause a loss of verbal value



Sentences

▶ Nominalization causes:

- Simplification of syntactic structures → fewer explicit subordinate clauses
- More main clauses
- Elimination of coordination with *thereby*: *the rivet contracts as it cools, thereby drawing the plates together*
- Greater sentence length
- Use of present tenses mainly



Passive and depersonalisation

- ▶ Passive as opposed to inclusive/exclusive we: *we can divide 9 by 3 without a remainder* → *9 can be divided by 3 without a remainder* → *9 is divisible by 3 without a remainder* → the division of 9 by 3 leaves no remainder
- ▶ *You*
- ▶ *One*
- ▶ *The book investigates/this article demonstrates*

