Translating climate change

20.03.2019

Revision work

- Use of verbs such as *suggest*: Graver, pp. 40-42
- Countable and uncountable nouns: Swan parag. 148, pp. 128-132, Graver *Irregular plurals*, pp. 251
- Discourse markers: Swan parag. 157, pp. 138-145
- Vocabulary work: Graver pp. 230-237

Cloud loss may lead to 14°C of warming

Michael Le Page

IF WE keep burning fossil fuels with reckless abandon, we could trigger a cloud feedback effect that will add 8°C on top of all the warming up to that point. That means the world could warm by more than 14°C above the pre-industrial temperature.

This would be cataclysmic. For instance, large parts of the tropics would become too hot for warm-blooded animals, including us, to survive.

The good news is that, if countries step up their efforts to cut emissions, we should

"The planet became so hot about 50 million years ago that crocodiles thrived in the Arctic"

avoid finding out if this idea is correct. "I don't think we will get anywhere close to it," says Tapio Schneider at the California Institute of Technology.

Schneider's team computer-modelled stratocumulus clouds over subtropical oceans. These clouds cover about 7 per cent of the planet and keep it cooler by

reflecting the sun's heat back into space. The group found a sudden transition when carbon dioxide levels reached around 1200 parts per million (ppm). At that point, the stratocumulus clouds broke up and disappeared.

This finding applies only to subtropical stratocumulus because these clouds are unusual. The cloud layer is maintained by the cloud tops cooling as they emit infrared radiation — and very high CO_2 levels block this process.

The loss of these bright white clouds would have a dramatic warming effect, adding 8°C to the global temperature, Schneider calculates. Because the world would warm around 6°C or more if CO_2 levels passed 1200 ppm, this means the average global temperature rise could exceed 14°C (*Nature Geoscience*, doi.org/c223).

Carbon dioxide levels will pass 410 ppm this year, up from 280 ppm in pre-industrial times. If we burned all available fossil fuels, atmospheric CO_2 levels could rise as high as 4000 ppm.

However, even in the standard worst-case scenario used by climate scientists, which assumes nothing is done to curb emissions,

Stratocumulus clouds reflect the sun's light, keeping Earth cooler

CO_2 levels would only pass 1200 ppm decades after 2100.

Other climate scientists say this cloud feedback is plausible. "Conceptually, I think it's sound," says Helene Muri at the Norwegian University of Science and Technology. But there are some uncertainties about the numbers, so it will be important to narrow them down, she says.

The result might hold up, but we already have more than enough reasons to avoid reaching such high levels of CO_2, says Kate

Marvel at the NASA Goddard Institute for Space Studies.

Emissions are currently growing in line with the worst-case scenario, however the expectation is that countries will eventually do more. "This result isn't cause for panic," says Marvel.

The finding could also help solve a long-standing mystery: why the planet became so hot about 50 million years ago that crocodiles thrived in the Arctic. We know that CO_2 levels were generally much higher at the time, but they didn't seem high enough to explain the extreme warmth during this period. ■

Sci/Tech text type/ Communicative function	Legal texts & standards	Leading-edge knowledge (discovery)		Didactic-instructive texts (integration & teaching)			Collective & combinatory knowledge resources	
1st Order variants: Theory & practice				Theoretical knowledge (unidirectional)		Human-tech interaction (bidirectional, practice-oriented)		
2nd Order variants: Information–presentation mode		Content-oriented, simple presentation	High print quality presentation	Pedagogical orientation	Arouse interest		Encyclopedic	Sub-sentence units
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	Collected formulas, parts lists, catalogues, tables, terminologies, glossaries, ontologies, etc.
				Selection/Compression			S/C	
Secondary text variants (Integrated or separate)	Scope, abstract, commentaries definitions	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	Gisting, MT, summary translation	Gisting, MT, summary translation	Gisting, MT, summary translation	...	...	Controlled language source + higher quality MT	......	

(Vertical label along the right separator column: Selection/Compression)

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

Criterion	Features	Questions
Subject matter	• subject matter/topic • degree of specialisation • research	• Are you familiar with the topic? • How specialised is the ST? • What research needs to be done?
Purpose	• use of the ST and TT • ST and TT readership • instructions for translation	• Who/what is the ST written for? • Is the end use of the TT known? • Is there a translation brief? If so, is it helpful?
Genre (text type)	• types of speech and writing recognised by a language community (e.g. adverts, public notices, contracts, certificates)	• What type of text is it? • Are you familiar with this text type? • Have you access to similar TL types?
Format	• physical layout • presentational features	• Are there any specific formatting or presentational elements? • Are there any special formatting instruction for the TT?

Language structure	• grammar • syntax • punctuation	• How complex is the sentence structure of the TT? • How complex is the syntax and grammar? • Is ST punctuation used differently to TL norms?
Lexis and register	• vocabulary/terminology • social register • professional register	• Is the lexis general and straightforward? • How much specialised terminology is there? Does this need research? • Does the language belong to a particular register or registers?
Stylistic features	• markers that signal a writer's idiolect (language and formal features)	• Are there any particular features that distinguish the author's writing style? • If so, what implications are there for the TT?
Organisation and logic	• sentences and paragraphs • cohesion and coherence	• Are ideas and information set out clearly and logically? • How is the discourse organised? Is it cohesive and coherent?

Meaning	• sense of the discourse • meaning of individual unit • meaning of the whole text	• Is/are the message/s clearly communicated at text level? • Is the message of each of meaning clear? • Is there any ambiguity?
Viewpoint	• subjectivity versus objectivity • perspective • author's voice	• Does the text contain opinion, persuasion, criticism, etc.? • Are viewpoints subjective or objective (or both)? • What are author's intentions?
Culture and context	• proper nouns • dialect, regionalism, slang • quotation • items out of context	• How culturally complex is the ST? • Are you familiar with the cultural references? • What further research needs to be done?

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

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 $\rightarrow$ establishing a territory – establishing a niche – occupying the niche // IMRD model
- **Argumentative pattern**

Maurizio Gotti (2006) *Investigating Specialized Discourse* Lang

ALCUNI CORPORA

- il primo corpus è del 1961 – **Brown Corpus** (1mln di parole, Brown University)
- **British National Corpus** (1991- 1994) (100 mln di parole, consorzio di editori OUP, Longman e Università Lancaster Oxford)
- **Bank of English** 1987 - (sponsorizzato da HarperCollins e diretto da linguisti dell'Università di Birmingham) (100 → 455 milioni di parole)

  John Sinclair, Editor-in-Chief del COBUILD Dictionary of English
- corpora italiani; **Paisà**, **Ridire** (1.3 mld), **La Repubblica**, **ItWac** (2 mld)
- corpora della **Brigham Young University** (COCA, Corpus of Contemporary American English 560 mln; **NOW** corpus news tratto dal web 1.1 bln)
- iWEB 14 mld 95,000 websites, scelti in modo sistematico, con siti aventi in media 240 pagine e 145000 parole – EnTenTen15 15 mld di parole
- corpora di **Sketch Engine** (gratis per le università e le istituzioni fino a marzo 2022)…

Dizionari sul Web

Alcuni dizionari gratuiti

- Collins http://www.collinsdictionary.com/
- Oxford: http://www.oxforddictionaries.com/ http://www.oxfordlearnersdictionaries.com/?cc=global
- Cambridge http://dictionary.cambridge.org/
- Longman http://www.ldoceonline.com/
- Merriam Webster http://www.merriam-webster.com/
- Treccani http://www.treccani.it/vocabolario/
- Gabrielli http://www.grandidizionari.it/Dizionario_Italiano.aspx
- Macmillan http://www.macmillandictionary.com/
- Larousse http://www.larousse.com/it/dizionari/
- Pons http://it.pons.com/traduzione
- Larousse http://www.larousse.com/it
- ecc.

Da G. Bacchelli intervento a Professioni delle Lingue