Notes for Lecture 05

English

A.HARICHE ▶L1-INF+MATH ▶ 30/11/2022

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English

1. Relative clauses

The Relative Clause

Definition: a relative clause is a dependent clause. It adds extra information or necessary information about one of the nouns in the main clause. It goes immediately after the noun it is related to. The relative pronouns **"who, whose, which, that"** introduce it.

1) **The relative pronoun as subject of a relative clause.**
   E.g. A man is rich. He may spend his money foolishly.
        The man **who is rich** may spend his money foolishly.
   Note: *'That'* is a possible alternative after *all, everyone, everybody, no one, nobody and those.*
   E.g. Nobody **who/ that** knew him liked him.

2) **The relative pronoun as object of a relative clause.**

   E.g. There is <u>the doctor.</u> I met <u>him</u> yesterday.

       There is the doctor <u>**whom/ who/ that I met yesterday.**</u>

   Or: There is the doctor I met yesterday. (Relative pronoun omitted when used as object).

3) **Whose: is the possessive determiner form of "who". It usually refers to a person or people .It replaces his, her, and their or a possessive case (s).**

   E.g. The film is about a spy <u>**whose wife betrays him.**</u>
                         (Relative clause- possessive)

   <u>**Functions of relative clause:**</u>

   1) **Defining/ Restrictive clause**: it introduces *information indispensable* for defining the noun it is related to. It limits/ restricts the noun it modifies.
      E.g. "The house has just been sold" "Which house are you talking about?"
            The house **that/ which** I showed you last week.
   2) **Non-defining/ non-restrictive clause**: it adds extra/ *additional information*, but that can be useful. The omission of this information doesn't affect the meaning of the sentence.

E.g. Mrs. Porter's house has just been sold. It has been for sale for two years.
Mrs. Porter's house, **which has been for sale for two years,** has just been sold.
Notice the use of **comas (,)** when dealing with non- defining relative clauses.

Sentence relative clause:

It refers back to the whole clause or sentence, not just to one noun. It always goes at the end of the clause or sentence.
E.g. Tina admires the Prime Minister. And this surprises me.
      Tina admires the Prime Minister, **which surprises me.**

Relative pronouns used in relative clauses

	Subject	Object	Possessive
For persons	who that	whom/who that	whose
For things	which that	which that	whose/ of which

Note: do not use "that" at the beginning of a non- defining clause.
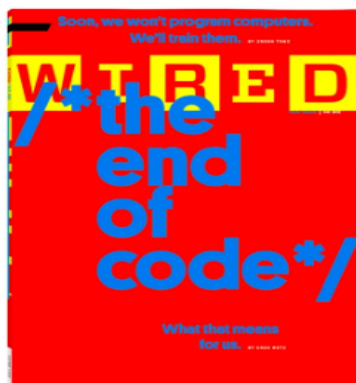
The text :

the end of code ?By Jason Tanz

Soon We Won't Program Computers. We'll Train Them Like Dogs

Welcome to the new world of artificial intelligence. Soon, we won't program computers. We'll train them. Like dolphins. Or dogs. Or humans.

BEFORE THE INVENTION of the computer, most experimental psychologists thought the brain was an unknowable black box. You could analyze a subject's behavior—*ring bell, dog salivates*—but thoughts, memories, emotions? That stuff was obscure and inscrutable, beyond the reach of science. So these behaviorists, as they called themselves, confined their work to the study of stimulus and response, feedback and reinforcement, bells and saliva. They gave up trying to understand the inner workings of the mind. They ruled their field for four decades.

Then, in the mid-1950s, a group of rebellious psychologists, linguists, information theorists, and early artificial-intelligence researchers came up with a different conception of the mind. People, they argued, were not just collections of conditioned responses. They absorbed information, processed it, and then acted upon it. They had systems for writing, storing, and recalling memories. They operated via a logical, formal syntax. The brain wasn't a black box at all. It was more like a computer.

The so-called cognitive revolution started small, but as computers became standard equipment in psychology labs across the country, it gained broader acceptance. By the late 1970s, cognitive psychology had overthrown behaviorism, and with the new regime came a whole new language for talking about mental life. Psychologists began describing thoughts as programs, ordinary people talked about storing facts away in their memory banks, and business gurus fretted about the limits of mental bandwidth and processing power in the modern workplace.

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This story has repeated itself again and again. As the digital revolution wormed its way into every part of our lives, it also seeped into our language and our deep, basic theories about how things work. Technology always does this. During the Enlightenment, Newton and Descartes inspired people to think of the universe as an elaborate clock. In the industrial age, it was a machine with pistons. (Freud's idea of psychodynamics borrowed from the thermodynamics of steam engines.) Now it's a computer. Which is, when you think about it, a fundamentally empowering idea. Because if the world is a computer, then the world can be coded.

Code is logical. Code is hackable. Code is destiny. These are the central tenets (and self-fulfilling prophecies) of life in the digital age. As software has eaten the world, to paraphrase venture capitalist Marc Andreessen, we have surrounded ourselves with

machines that convert our actions, thoughts, and emotions into data—raw material for armies of code-wielding engineers to manipulate. We have come to see life itself as something ruled by a series of instructions that can be discovered, exploited, optimized, maybe even rewritten. Companies use code to understand our most intimate ties; Facebook's Mark Zuckerberg has gone so far as to suggest there might be a "fundamental mathematical law underlying human relationships that governs the balance of who and what we all care about." In 2013, Craig Venter announced that, a decade after the decoding of the human genome, he had begun to write code that would allow him to create synthetic organisms. "It is becoming clear," he said, "that all living cells that we know of on this planet are DNA-software-driven biological machines." Even self-help literature insists that you can hack your own source code, reprogramming your love life, your sleep routine, and your spending habits.

Questions

Text comprehension:

- Give another title to the text.
- What is the challenge for artificial intelligence between the past and the present?
- How can we defined all living according to the text?

Language mastering:

- Give the synonym of these word: ungovernable, conquer.
- Give the antonym of these world: superficial, disbelief.

Translation

- Translate these following into French :
  Code is logical. Code is hackable. Code is destiny. These are the central tenets (and self-fulfilling prophecies) of life in the digital age. As software has eaten the world

Extract from texts some relative clauses.