§ Thesis: Language is a basic instinct of human beings.

__ Language is not a cultural artifact that we learn the way we learn to tell time. It is no more a cultural invention than is our upright posture.

__ Language is a complete, specialized skill, which develop in the child spontaneously, without conscious effort or formal instruction.

__ Language is part of the biological makeup of our brains.

[Argument from the Poverty of Input] (Chomsky)

1. Children learn their first language with very little input from adults.
2. If everything about language is taught, then children can only use the language the way they are taught— word-by-word.
3. However, children in all cultures are structure-dependent in their language usage—they develop complex grammars rapidly and grow up to give consistent interpretations to novel sentence constructions that they have never before encountered.
4. Therefore, language skills must not all be taught; there has to be an innate ability for language (in particular, for the tacit understanding of sentence structure, word meaning, etc.).

§ Mentalese — The Language of Thought (in the Brain)

Q 1: Is thought dependent on language? Do people literally think in their spoken language?
Pinker: No.

[Pinker’s Argument #1]:

1. We have all had the experience of uttering or writing a sentence, then stopping and realizing that it wasn’t exactly what we meant to say.
2. To have this feeling, there has to be a “what we meant to say” that is different from what we said.
3. Therefore, the language of thought must not be the same as the language of speech.

[Pinker’s Argument #2]:

1. If thought depends on language, then there would be no thought where there is no word.
2. However, there are new words being coined all the time.
3. Therefore, thought must not be dependent on language.

[Pinker’s Argument #3]:
1. If thought is dependent on the spoken language, then translation from one language to another is impossible.
2. But there is reliable translation.
3. Therefore, there must be a common basis in the brain for different spoken languages.
4. Therefore, the language of thought is not the same as the spoken language.

Q 2: Do languages shape their speakers’ ways of thinking? Are our concepts dependent on the words we use?

Pinker: No

Lee Whorf: “We dissect nature along the lines laid down by our native languages…. We cut nature up, organize it into concepts, and ascribe significance as we do, largely because we are parties to an agreement that holds throughout our speech community and is codified in the patterns of our language.”

— Discuss examples from other languages (‘lemon’, ‘lime,’ ‘etc.’)

Q: Which comes first — concepts or words?

Pinker’s view: Thinking comes before language
1. Deaf children and adults who lack any form of language can still have many abstract forms of thinking.
2. Intelligent creatures without language (human babies, monkeys) have the ability to do abstract thinking and have concepts of number, relationships, etc.
3. Many creative people in their most inspired moments think not in words but in mental images. Many scientists also claim to think in geometrical forms, not in words.
4. Experiments show that visual thinking uses not language but a mental graphics system.

Q 3: Are there incommensurable worldviews shaped by the languages we use because our concepts are not translatable? Between a primitive society’s unique language and the mainstream languages, are there gaps or discrepancies in their conceptual schemes?

Pinker: No. We think in the same language— our language of thought.
§ Mentalese

The brain represents images, numbers, relationships, logic, etc. without using words. This shows that the brain uses an internal symbolic representation and this is called ‘Mentalese.’

In the brain, there might be three groups of neurons

(1) One to represent the individuals that the proposition is about \( \Rightarrow \) particulars (singular terms)
(2) One to represent the logical relationship in the proposition
(3) One to represent the class or type that the individual is being categorized. \( \Rightarrow \) universals (kind terms)

The brain processes the information to generate sentences.

Mentalese is not simply an internal rephrasing of spoken languages because natural languages such as English has the following problems that Mentalese does not:

1. ambiguity
2. lack of logical explicitness
3. co-reference
4. some aspects of language (such as the usage of ‘a’ or ‘the’) can only be interpreted in the context of a conversation or text
5. synonymy

Conclusion:

People do not think in English or Chinese; they think in a language of thought.

It is likely that there is a universal Mentalese that all people with different languages share in common.

If babies do not have a Mentalese to translate to and from English, then it is not clear how learning English could take place.