

**PSG105** 

# PENGANTAR PSIKOLOGI

Runi Rulanggi -Prodi Psikologi FHB UPJ



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# Jumpa Lagi di Kelas Pengantar Psikologi.

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Kembali lagi bersama saya, Anggi.

# Pertemuan Ketujuh Pengantar Psikologi.

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Bahasa dan Kognisi

### Outline

- Language:
- Adaptive functions
- Properties
- Structure
- First language & biligualism
- Thinking
- Thought
- Concept & proposition
- Reasoning
- Problem solving & decision-making
- Knowledge
- Mental imagery



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- Brain achieved its present form:
- 50.000 years ago.
- Paintings appear in cave walls: 15.000 years ago.
- Writings appear: 3.000 years ago.

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## Development of Language

- Language:
- System of symbols and rules.
- Rules combines symbols in ways that can generate an infinite number of possible messages and meaning.

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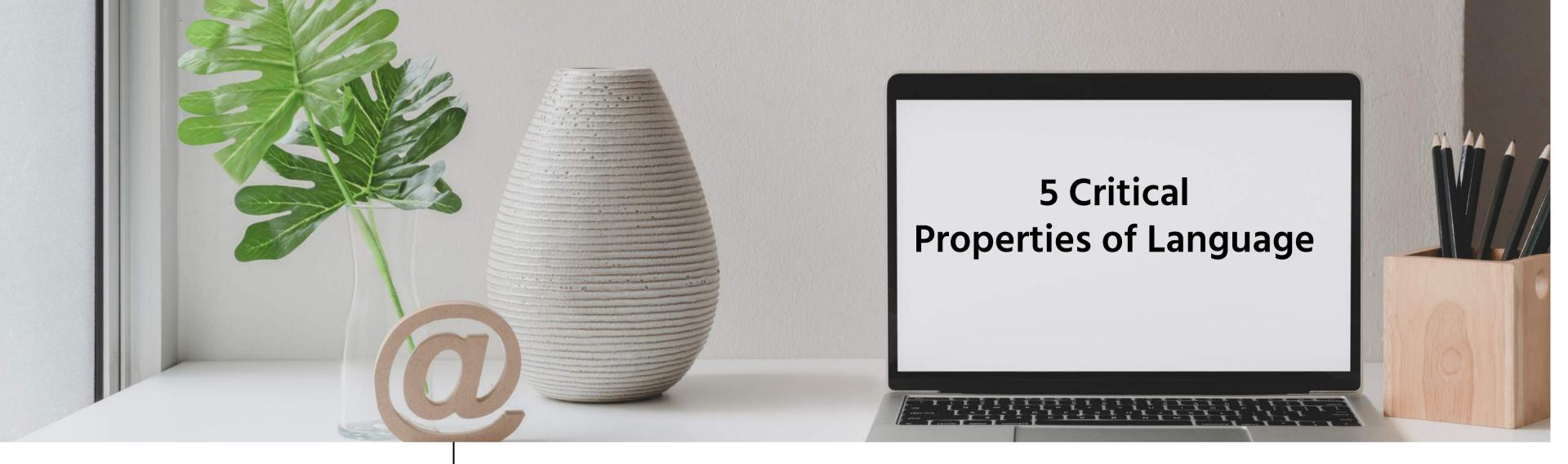
# Language

Adaptive functions of language:

 Language evolved as people gathered to form larger social units. )9

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# Language



- Symbolic
- •Rule-Governed Structure
- Meaning
- Generative
- Displacement





- Sounds, written signs, & gestures to refer to objects, events, ideas, & feelings.
- We communicate & transfer our mental representations to the mind of others.

### Symbolic

Sounds, written signs, & gestures to referobjects, events, ideas, & feeling

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	Morse code	Semaphor e code	Sign language	Braille
A				
В				
C	_			



- Symbols are combined to create meaningful communication units (Grammar).
- Syntax: the rules that govern the order of words
- Scattered pictures NOT Pictures scattered (Hukum MD)
- Gambar (yang) cerai-berai BUKAN Cerai-berai gambar (Hukum DM)





Symbols are combined to generate an infinite number of messages having novel meaning.



- Surface structure
- The way symbols are combined within a language.
- The rules of grammar Syntax.
- Deep structure
- Underlying meaning of the combined symbols.
- The rules of connection Semantic.



- In the sentence: "VISITING RELATIVES CAN BE BORING"
- There is only one SURFACE STRUCTURE
- But there are two DEEP STRUCTURES (meanings)
- WHAT ARE THE TWO MEANINGS OF THE SENTENCE ???



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#### • Hierarchical structure:

- phoneme (the smallest unit of sound, recognized as separate in given language)
- o morphemes (the smallest units of meaning in a language)
- discourse (sentences are combined into paragraphs, articles, etc.)



- Sesuatu yang berkaitan akan mudah diingat
- Sesuatu yang aling beda akan mudah diingat.
- Hal-hal yang melibatkan emosi yang mendalam sangat membekas dan mudah diingat



- Understanding and Producing Language
  - Bottom-Up processing
  - "individual elements of a stimulus are analyzed and then combined to form a unified perception"
  - Top-Down processing
  - "sensory information is interpreted in light of existing knowledge, concepts, ideas and expectations"
  - Pragmatics
  - "knowledge of the practical aspects of using language"



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#### Acquiring First Language

- Biological foundation
- Social learning processes
- Developmental timetable and sensitive periods
- Bilingualism
- •Using 2 languages in daily life



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Language can influence on thinking
Benjamin Lee Whorf linguistic relativity hypothesis
"language not only influences but also determines what we are capable of thinking"





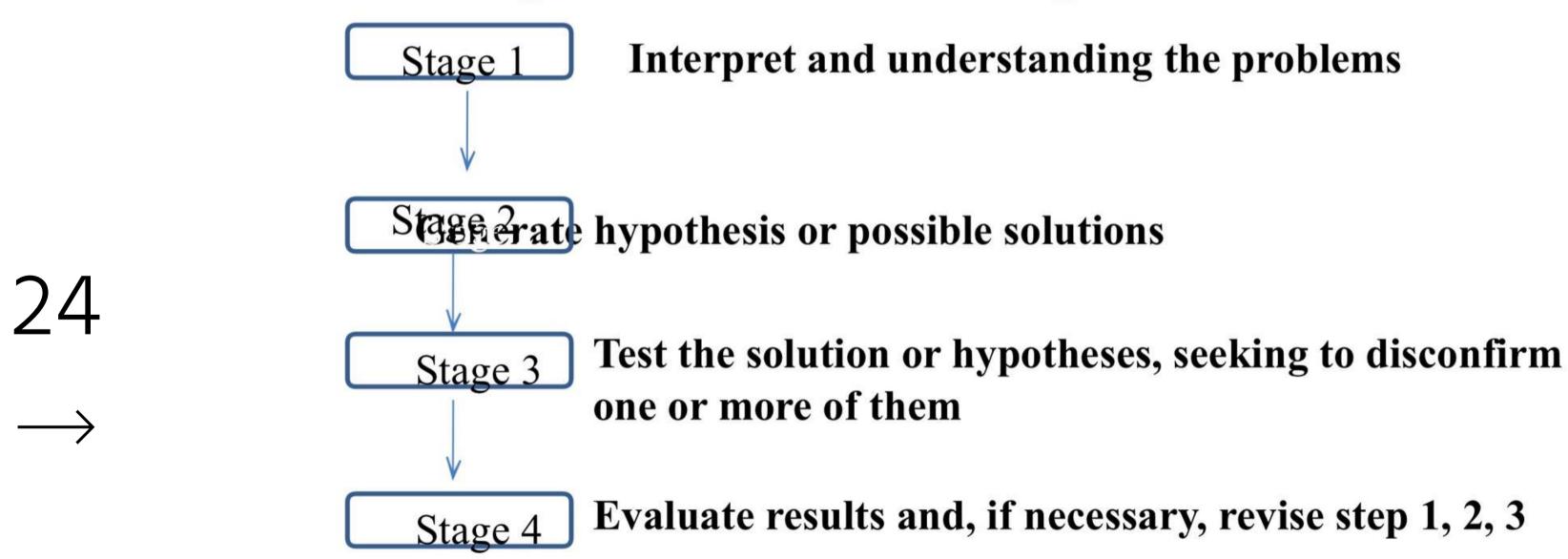
At the psychological level thinking may seem to be the internal language of the mind (inner speech)

- •Proportional thought it expresses a proposition or statement
- •Imaginal thought consist of images that we can see, hear, or feel
- •Motoric thought mental representation of motor movement Concepts are basic units of semantic memory-mental categories into which we plaze objects, activities, abstractions, and events that have essential features in common



- Reasoning
- Deductive reasoning
- Inductive reasoning

#### Problem Solving and Decision Making



The Role of Problem-Solving Schemas

"step by step scripts selecting information"

"solving specialized classes of problems"

Algorithms and Heuristics

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- Algorithms □ formulate to generate correct solution example : mathematics formulas
- Heuristics 

  general problem-solving to certain classes of information

Representatives heuristic Availability heuristic

example: means-ends analysis (Newell & Simon, 1972)

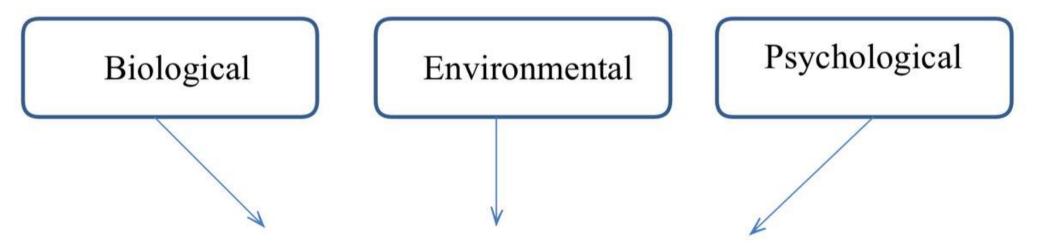
Acquiring Knowledge **Scripts** Wisdom Schema Mental Mental Imagery - mental imagery  $\square$  representation of stimulus, originate inside the brain from external sensory input - mental rotation  $\square$  people rotate one object in their mind's eye until to permit a same-different judgement

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#### Mental Imagery

Mental imagery as perception

Mental imagery as Languge



Factors related to human thought

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## Do you have any questions?

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- Passer, M.W. & Smith, R.E. (2011). Psychology : The Science of Mind and Behavior. New York : McGraw-Hill Companies, Inc.
- Sugiyanto. (2009). Modul Matakuliah Psikologi Umum. Yogyakarta : Fakultas Psikologi Universitas Gadjah Mada.

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