

The Many Faces of Consciousness

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Some Characteristics

- *It is highly valued*
- *It is a very precious resource*
- *It is a limited resource*
- *It is submitted to changes*
- *All people have it (and probably some of the animals too)*
- *It is affected by external and internal factors*
- *It has many forms often called “states”*
- *It is submitted to extensions and contractions*

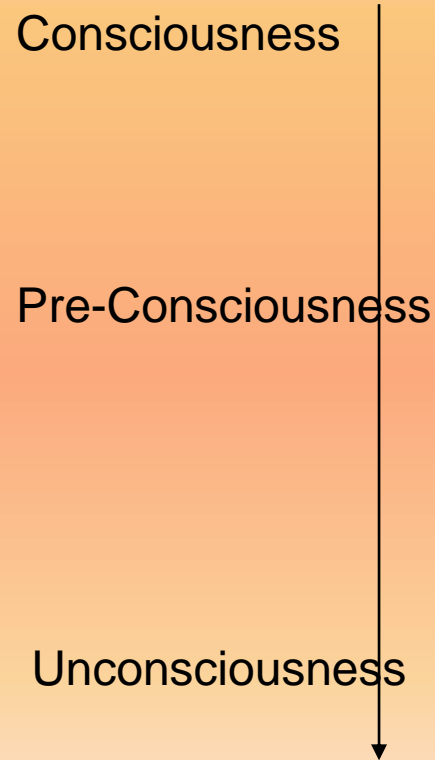
What is a state of consciousness?

Examples of states of consciousness:

- Hypnosis
- Drug-induced intoxication (different kinds)
- Alcohol intoxication
- Dreaming
- Psychosis
- Toxicity
- Fever
- Mystical experiences
- Oceanic experience
- Sleep
- States of emotions (being in love/Anxiety/Rage)
- Flow

The Conception of Classical Dynamic Psychology: Freud

There exists one basic perpendicular continuum



The continuum represents

Consciousness

Control

Awareness

Clarity

Strength

Good reality grasp

Logical thinking

Control over emotions & forbidden drives

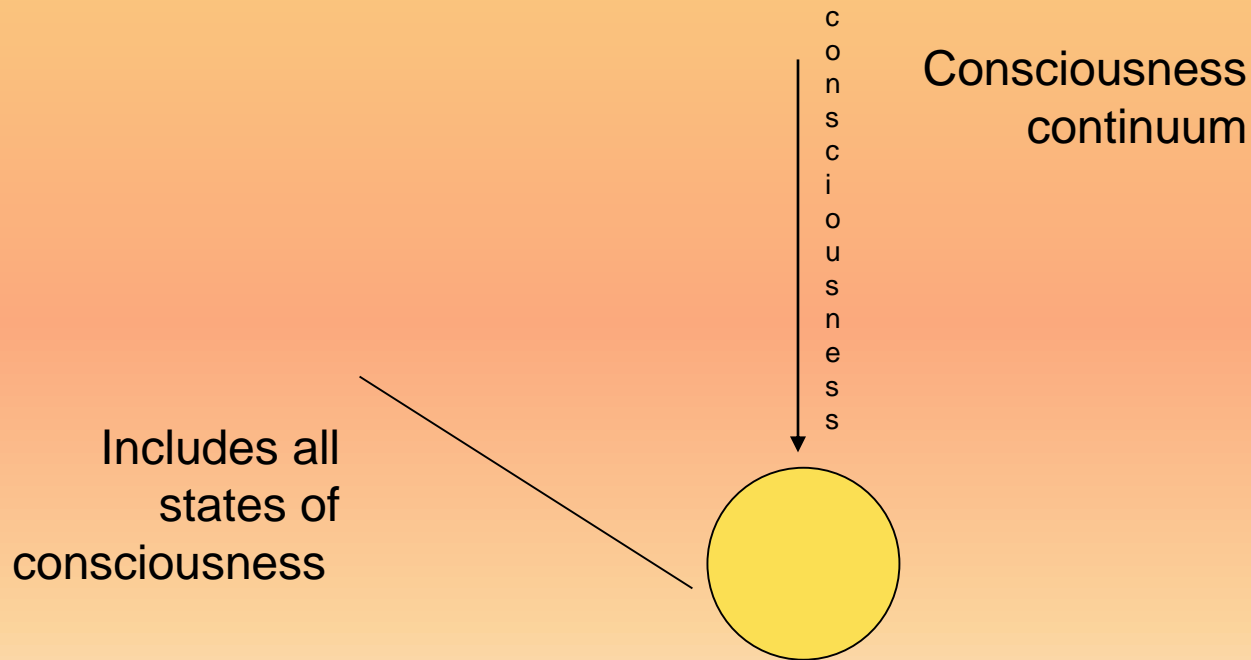
Mental health

Progress

Refinement

Action ability

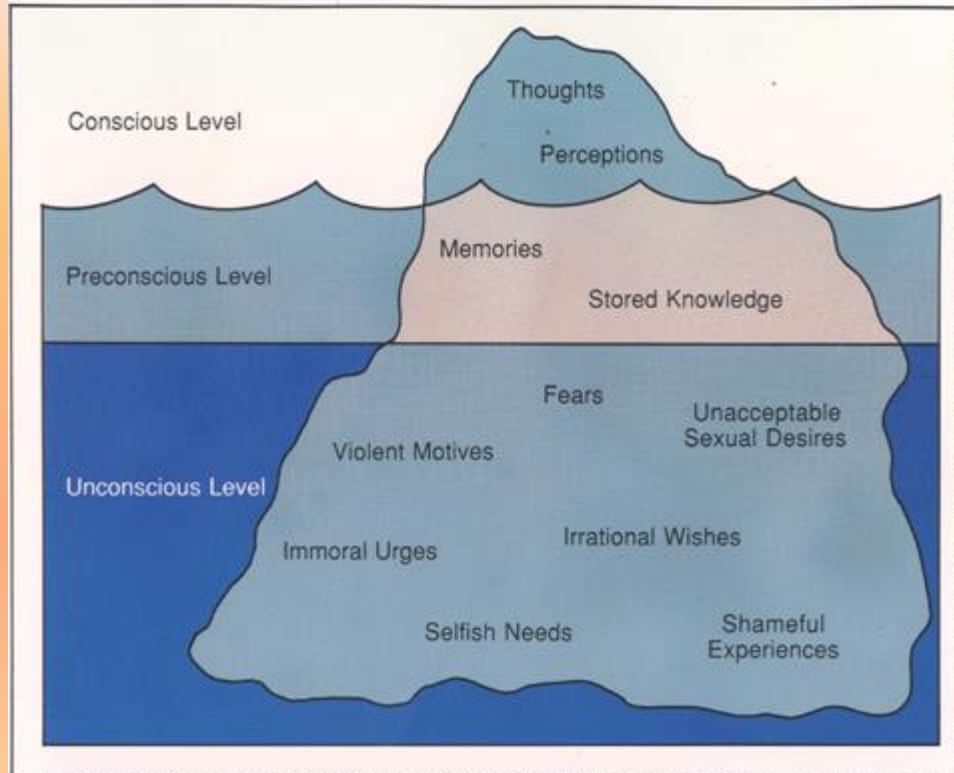
All states of consciousness are arranged along
this one continuum



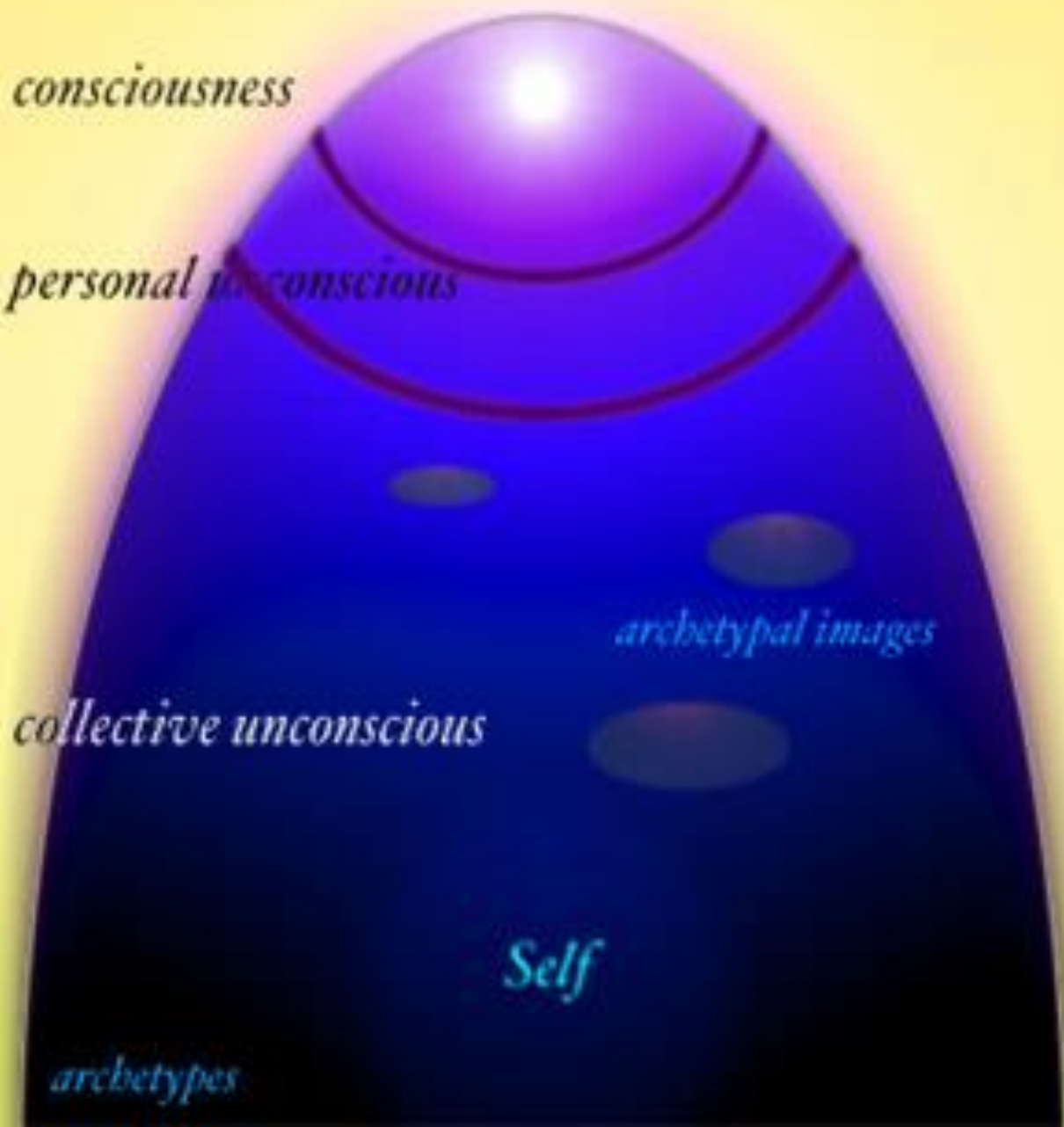
**No distinctions are drawn among the different
states of consciousness
except in terms of external characteristics
(e.g., duration or triggers)**

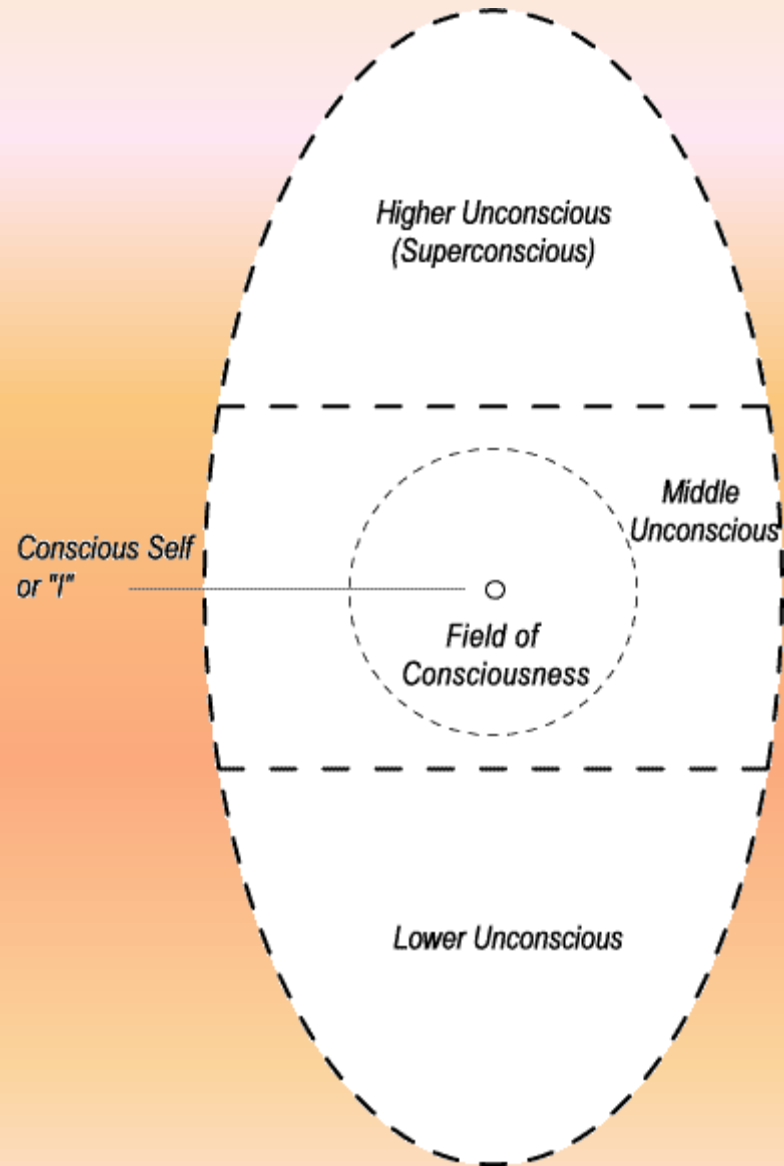
**Differences in contents (e.g., Freud, Jung) do
not make for differences in states of
consciousness**

PERS 5 Freud's View of the Human Mind: The Mental Iceberg



Structures of the Unconscious





Characteristics of Different States of Consciousness

- *Salience and status of the ego*
- *Clarity of thinking*
- *Precision of sensory perception of external environment*
- *Precision of sensory perception of internal environment*
- *Potential ability of controlling physiological processes*
- *Sense of control*

Characteristics of Different States of Consciousness (continued)

- *Extent of emotional involvement*
- *Accessibility of certain kinds of information*
- *Blocking of access to certain kinds of information*

Implications in regard to States of Consciousness in view of the noted Characteristics

- *There exist different states of consciousness, which differ in terms of various characteristics*
- *The differences among states of consciousness can be expressed in terms of the values along different continua*
- *Absence of awareness does not justify inserting all states of consciousness into one package*
- *There is no justification to consider any one state of consciousness as superior to all others*

*Implications in regard to States of Consciousness
in view of the noted Characteristics*

- *States of consciousness must be dependent on the functioning or change in functioning of a very basic and essential system in the organism*
- *I propose that this system is **cognition**.*

What is a state of consciousness?

The definition, any definition, rests on several assumptions.

- *Assumptions:*

- *Consciousness is a property of cognition.*
- *Consciousness characterizes the total state of cognition at a given time.*
- *The cognitive system includes contents and processes.*
- *Cognition is a system.*
- *The understructure of the system of cognition is meaning.*
- *The cognitive system may be in different states.*
- *The state of the cognitive system depends on meaning and is a function of the dynamics of meaning.*

What is meaning?

- *The theory of meaning was developed by Kreidler & Kreidler from 1968 onward.*

*Meaning is a pattern of
cognitive contents focused on
a referent.*

*A **referent** can be an external or internal stimulus, limited or extended, real, virtual or fantasized, an object, a situation, an event, an individual, etc.*

*The **cognitive contents** are designed to express or communicate information that would enable identifying the referent, handling it, responding to it, or dealing with it within the psychological domain.*

The cognitive content and the referent form together the meaning unit.

MEANING UNIT

Referent – Meaning Value

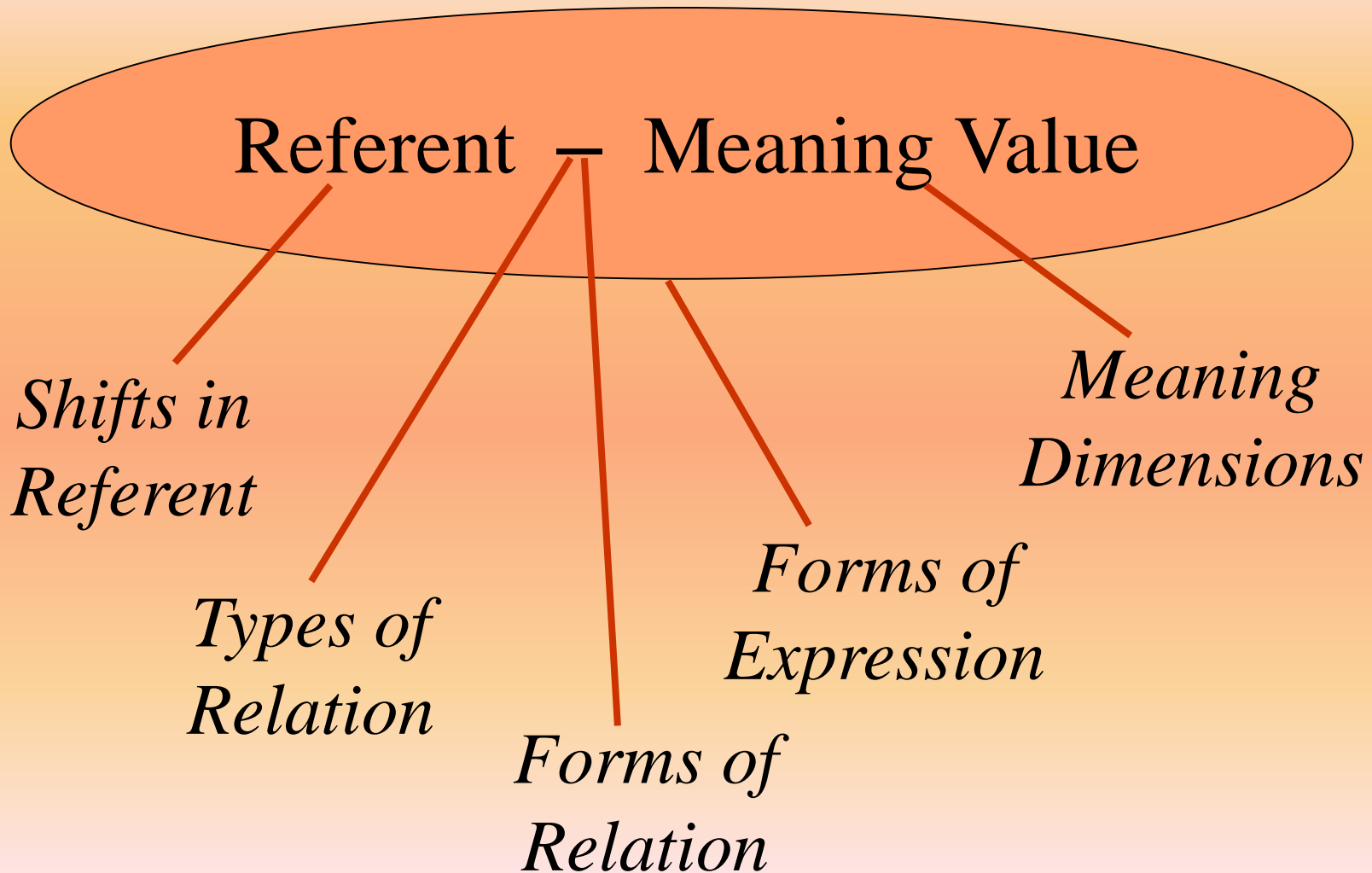
Examples:

Lisbon – is a wonderful city

A car – serves for transportation

Symposium – brings people together

The meaning unit is characterized in terms of the following 5 sets of variables:



Examples of Meaning Variables:

- **Meaning dimensions:** *Content categories*, such as *Feelings and Emotions, Actions, Sensory Qualities (color, shape, etc.), Size, Weight*
- **Types of Relation:** *Relational categories*, such as *Attributive, Comparative, Illustrative-Exemplifying, Metaphoric-Symbolic.*
- **Forms of Relation:** *Formative categories*, such as *Positive or Negative, Simple or Complex (e.g., Conjunctive, Disjunctive), Absolute or Modified (e.g., always, sometimes)*
- **Shifts of Referent:** *Categories of shifts to other constructs*, such as *from Ocean to Lake, from House to Windows*
- **Forms of Expression:** *Categories of means of expression*, such as *words, drawings, movements, denoted objects*

Meaning Variables and the Individual

- *Each person uses only a specific selection of the available meaning variables.*
- *The meaning variables that characterize the individual constitute the **individual's MEANING PROFILE**.*
- *The individual's meaning profile may be assessed by administering the **MEANING TEST**.*
- *The meaning test consists of 11 standard stimuli; the individual is requested to communicate their meaning to another person.*

Meaning Variables and Cognitive Tasks

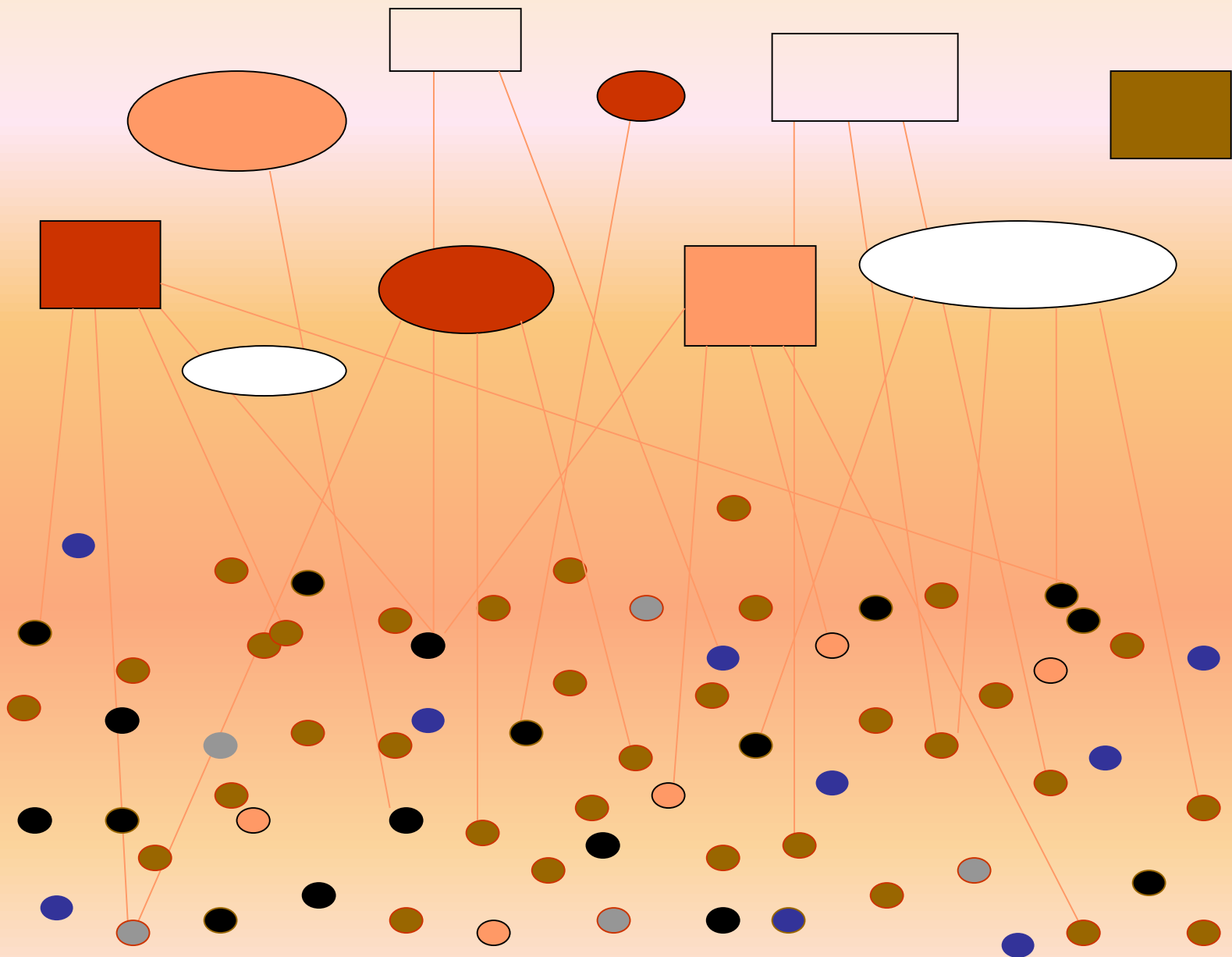
- *Each cognitive task is performed by applying a specific selection of meaning variables.*
- *The selection of meaning variables involved in the performance of a specific task constitutes the **task's MEANING PROFILE**.*
- *In order to identify the task's meaning profile it is necessary to determine which meaning variables differentiate significantly between the meaning profiles of the individuals who perform the task well and those who perform it poorly.*

MAPPING OF MEANING PROFILE

- *Of individuals*
- *Of tasks*
- *Of other constructs – emotions*

personality traits

defense mechanisms



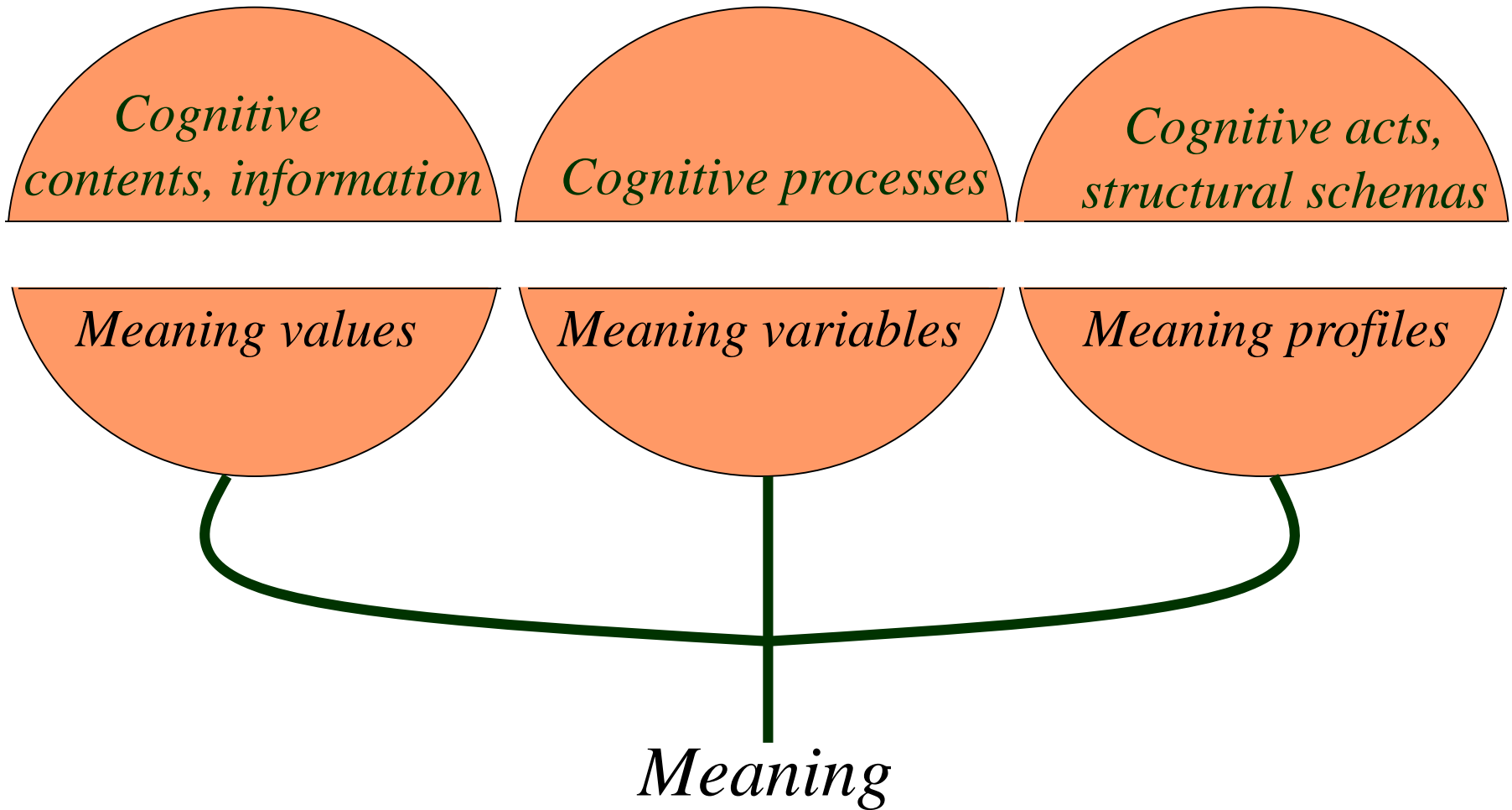
Uses of Meaning Variables

- 1. For characterizing an individual's meaning processing system
i.e., the individual's meaning profile*
- 2. For characterizing specific contents
e.g., "Vienna is in Europe" refers to the Meaning Dimension Locational Qualities*
- 3. For characterizing processes
e.g., solving a problem about causality involves the Meaning Dimension Causes and Antecedents*
- 4. For characterizing structures or complexes
e.g., identifying the meaning variables
corresponding to a personality trait, a cognitive act, an emotion, or an act of behavior*

*The effects of meaning are manifested
in different domains:*

- *Cognition*
- *Personality*
- *Self*
- *Emotions*
- *Behavior*

Meaning Variables and Cognition



1. Meaning Values and Cognitive Contents

Meaning values correspond to cognitive contents and information.

Examples:

When the individual's meaning profile shows a high frequency of the meaning dimension Locational Qualities, that individual may be expected to have a lot of labels, words, information in the domain of location, places, routes.

2. Meaning Variables and Cognitive Processes

Cognitive processes correspond to specific meaning variables or combinations of meaning variables.

Examples:

- *Shifting from one theme to another – High frequency of referent shifts of medium degree (e.g., shifting to previous response, or to superordinate referent)*
- *Associations – High number of meaning values (absolute and especially relative), high number of different shifts of referent*
- *Abstracting – High frequency of meaning dimension*
Contextual Allocation

3. Meaning Profiles and Cognitive Acts

Cognitive acts correspond to specific combinations of meaning variables that constitute complete profiles.

*Cognition works with meaning,
namely, it responds to meanings,
and produces, elaborates, stores,
transforms and uses meanings.*

The meaning system is dynamic and undergoes changes.

The major changes are that specific meaning variables come to dominate the system.

The changes in the system of meaning affect cognitive contents and functioning

*Causes for the
changes, How the
changes come about?*

The changes in meaning may be triggered by

- *Internal dynamics of the meaning system*
- *Psychological events or stimuli – cognitive, emotional, extreme excitement, anxiety, etc.*
- *Physiological states or stimuli*
- *Physical activity (training)*
- *Repetition of some movement or specific words (e.g., prayer, ritual)*
- *Meditation*
- *Drugs, medications*

The changes in the meaning system determine what kinds of information are available at the time, how they are organized and used, and what the cognitive outputs will be.

The indirect effects are:

- *Changes in the perception of reality*
- *Changes in the sense of self*
- *Changes in emotions*
- *Changes in behavior*

Some changes in the meaning system are pervasive and affect cognition in a total and noticeable manner. Changes of this kind are responsible for altered states of consciousness [ASC].

ASC

*Pervasive change
in the meaning system*



*Change in
cognition*



*Changes in
Personality
Self
Emotions
Perception of
reality*

*One example of an Altered State of
Consciousness induced by a change in meaning.*

*The change in meaning consists in the salience
of*

– the interpersonally-shared meaning

or

– the personal-subjective meaning

Intepersonally-shared meaning is characterized by

- *expressing meanings in attributional or comparative forms*
 - *e.g., Love – is an emotion (attrib.)*
 - *Love – is like anger (comp.)*
 - *Love – differs from pain in...(comp.)*

Personally-subjective meaning is characterized by

- *Expressing meanings in illustrative-exemplifying or*
- *metaphorical-symbolic forms*
 - *e.g., Love – A man and a woman making love (exempl.)*
 - *Love – is the spring of life (metaph.)*

MODES OF MEANING

- *Interpersonally-shared meaning is one mode of meaning*
- *Personal-subjective meaning is another mode of meaning*
- *The differences between the two modes of meaning consist in the relations between the referents and the contents, but not in the referents or the contents themselves. The differences are structural.*

*It is possible to induce in participants
interpersonally-shared meaning or
personal-subjective meaning by
requesting and promoting specific
meaning assignments.*

The Experimental Design

Same group of subjects exposed to two different manipulations
OR: Two different groups of subjects, experimental and control
with and without manipulations

GROUP	INDUCED MODE OF MEANING	ADMINISTERED TASK
1a	Interpersonally-shared	A
1b	Personal-subjective	B
2a	Personal-subjective	A
2b	Interpersonally-shared	B
3a	Interpersonally-shared	B
3b	Personal-subjective	A
4a	Personal-subjective	B
4b	Interpersonally-shared	A

Examples of experimentally-produced effects under the induction of interpersonally-shared meaning or personal-subjective meaning:

<i>Variable</i>	<i>Interpersonal Mode of Meaning</i>	<i>Personal Mode of Meaning</i>
<i>Reaction time</i>	<i>Fast</i>	<i>Slow</i>
<i>Identifying embedded figures</i>	<i>Slow, more errors</i>	<i>Fast, few errors</i>
<i>Creativity</i>	<i>Low or medium scores</i>	<i>High scores</i>
<i>Judging validity of syllogisms</i>	<i>High scores</i>	<i>Low scores</i>
<i>Gestalt completion</i>	<i>Slow</i>	<i>Fast</i>
<i>Visual memory</i>	<i>Medium</i>	<i>Good</i>
<i>Verbal memory</i>	<i>Good</i>	<i>Medium</i>
<i>Rorschach</i>	<i>Good emotional control</i> <i>Good reality testing</i>	<i>Poor emotional control</i> <i>Poor reality testing</i>
<i>Understanding poetry</i>	<i>Poor grasp of meanings</i>	<i>Good grasp of meanings</i>

Examples of experimentally-produced effects under the induction of interpersonally-shared meaning or personal-subjective meaning:

<i>Variable</i>	<i>Interpersonal Mode of Meaning</i>	<i>Personal Mode of Meaning</i>
<i>No. of associations</i>	<i>Medium</i>	<i>High</i>
<i>No. of personal associations</i>	<i>Low</i>	<i>Very high</i>
<i>Judging emotional expression on faces</i>	<i>Longer RT, many errors</i>	<i>Faster RT, very few errors</i>
<i>Accuracy of size estimation of lines/circles</i>	<i>High scores</i>	<i>Low scores</i>
<i>Accuracy of size comparisons of lines/circles</i>	<i>High scores</i>	<i>Low scores</i>
<i>Art preferences</i>	<i>Representational style, Geometric</i>	<i>Symbolists, Dada, Expressive</i>
<i>Gestalt preferences</i>	<i>Good and simple Gestalts</i>	<i>Complicated, not-so-good Gestalts</i>

- *Inducing **interpersonally-shared meaning** or **personal-subjective meaning** in an individual produces a state of consciousness that affects cognitive functioning.*

Induced states of consciousness

- *Enhancement of a logical approach, critical approach*
- *Enhancement of an abstract approach or concrete-sensory approach*
- *Socially induced: fake news, fake reality*

Inducing specific states of consciousness

- *Concentrating in an exam, low anxiety*
- *Salesmanship, selling a product*
- *Empathy for a client or patient*

Inducing states of consciousness by cognitive meaning-based tools I

- *Identify the relevant meaning variables.*
- *For example, **the meaning profile of anxiety** includes low action, no external sensory qualities, low time and low place, high metaphors, many negative responses.*
- *For reducing anxiety: enhance action, sensory qualities, time and place. Do not dwell on metaphoric responses*
- *The three stages of enhancing a benign variables*

Inducing states of consciousness by cognitive meaning-based tools II

- *Another example: Empathy for the other*
- *Relevant meaning variables: the other (not I or the self), contextual meaning variables (time, place, objects, actions, emotions, examples (not evaluations, not cognitions or memories, not causes or development)*
- *Another example: Critical thinking*
- *Relevant meaning variables: contextual allocation, range of inclusion, comparisons, implications. either-or, if-then*

Inducing states of consciousness by cognitive meaning-based tools III

- *Another example: exposure to art, teaching a literary text*
- *Relevant meaning variables: the subjective mode of meaning, emotions, memories.*
- *Another example: enhancing creativity*
- *Relevant meaning variables: both the personal and the interpersonal modes of meaning and the switching between them, referent shifts of three grades (low, medium, distant), structure....*

Conclusions

- *A states of consciousness is a particular organization of cognition.*
- *Cognition is always in a state of consciousness.*
- *A state of consciousness is reflected in the structurization of meaning*
- *A state of consciousness may be identified and assessed by means of the test of meaning*

Conclusions (continued)

- *The state of consciousness is a product of changes in the meaning system.*
- *The changes in meaning may be induced by a great number of factors, some external to the system of meaning and some internal.*
- *Even when the inducing factor is not affiliated with meaning (e.g., drugs, toxins, certain movements) the induced state of consciousness consists in changes of meaning.*

Conclusions (continued)

- *Some changes in the meaning system may be induced by tasks of meaning assignment.*
- *Only specific tasks of meaning assignment produce changes in state of consciousness*
- *Inducing meaning modes of interpersonally-shared or personal-subjective meanings produces effects of states of consciousness.*

Implications

- *There is a great number of **existing** and **possible** states of consciousness.*
- *Results of cognitive or personality tests in psychology or education are to be accompanied by specifying the state of consciousness prevailing in the proband at the time of testing.*

Implications

- *It is to be hoped that in the future it will be possible for an individual to select the right kind of state of consciousness for any planned act (or mood or state) and produce it at will.*
- *My dream - application*
- *.... All kinds of dreaming are states of consciousness*

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Enjoy your next state of consciousness