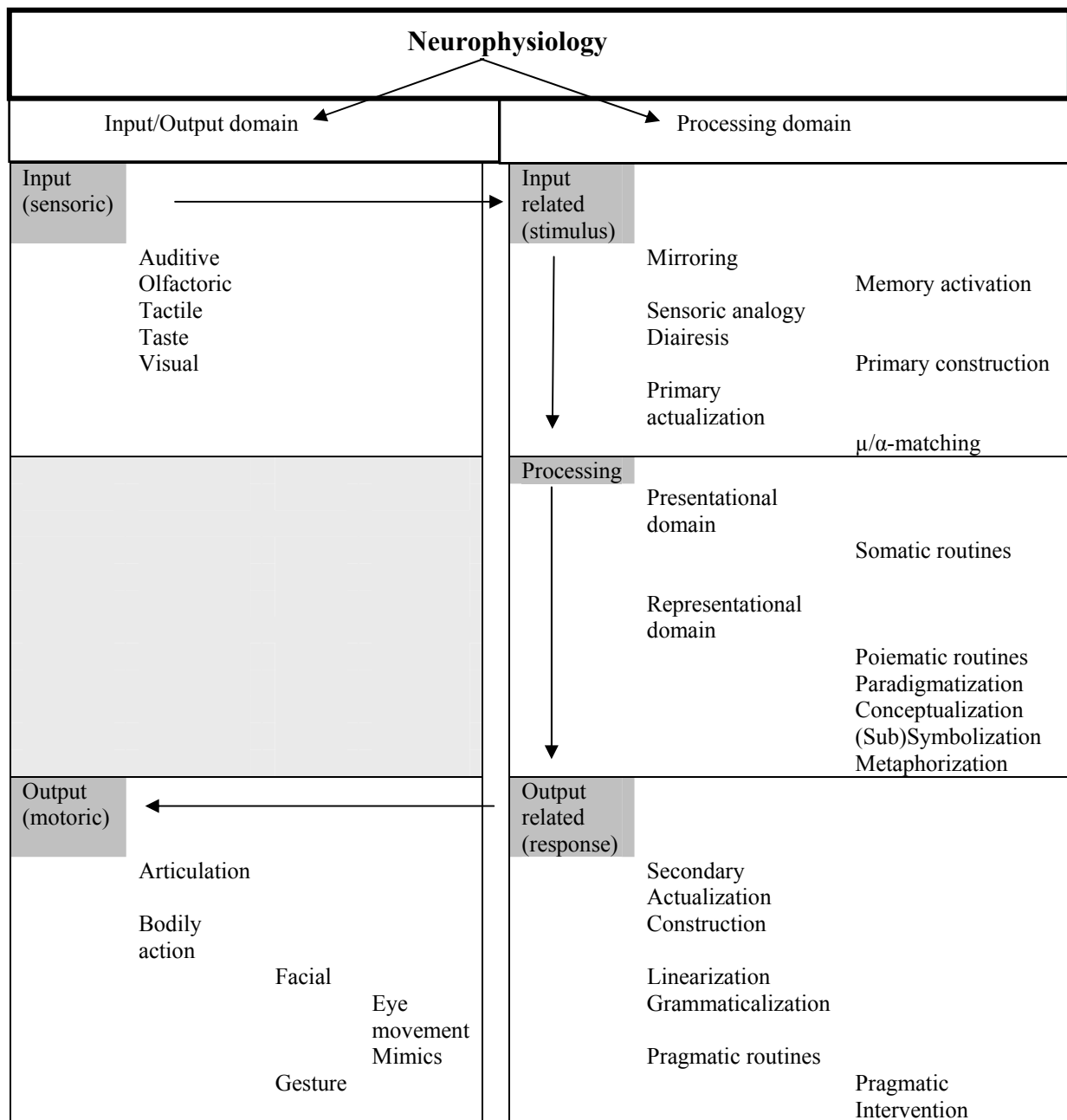


## The Construction of Language

Radical Experientialism and the phenomenology of linguistic knowledge

### I) FOUNDATIONS:

(1) Language and Cognition (a preliminary model)

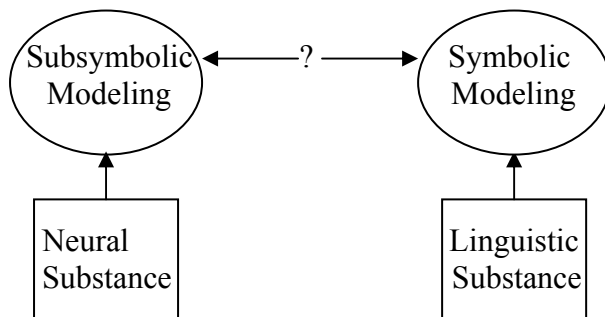


- (2) *Neurophysiological Cognitive Linguistics*  
 The observation, description, and analysis of neural activities during language perception/articulation.  
 → Phenomena: Neural activation zones  
 → Inference: Dynamic architecture of (re)presentational domain

*Analytic Cognitive Linguistics*

- The observation, description, and analysis of linguistic activities with respect to cognitive activities.  
 → Phenomena: Linguistic output  
 → Inference: Dynamic architecture of (re)presentational domain

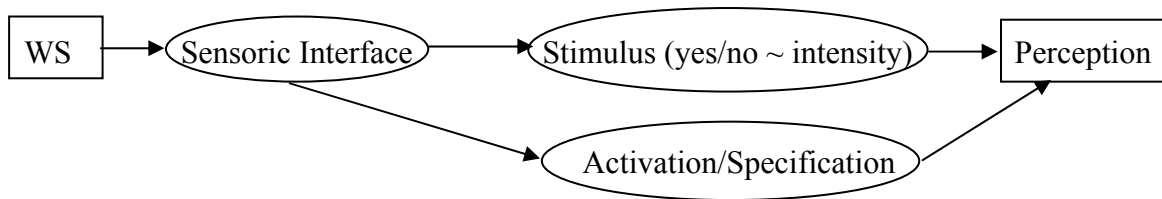
- (3) *Basic claim:*
- (a) Anything in language is processed in cognition  
 → Language is a 'property' of cognition
  - (b) Anything in cognition is neurally processed  
 → Cognition is an instantiation of neural networking processes
  - (c) Conclusio: language is an instantiation of neural networking processes
- (4) *Neural Iconicity Hypothesis, NIH:* Are routinized linguistic activities immediate or mediated (emergent) 'expressions' of neural activities? (see below)
- (5) Bridging the symbolic and the subsymbolic approach:



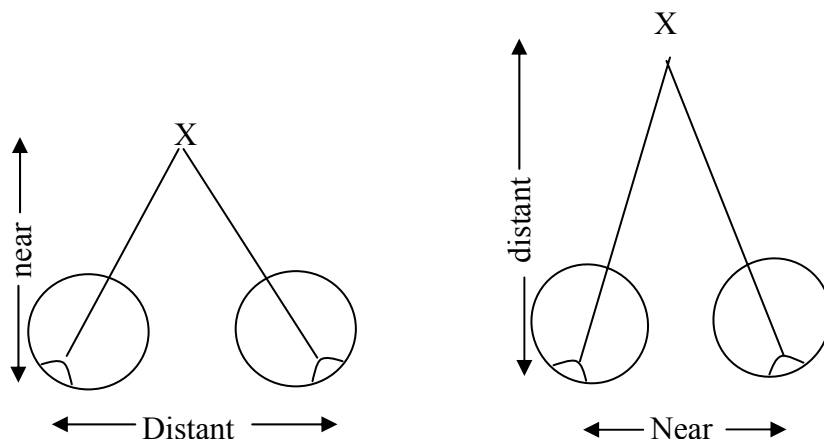
- (6) The Environment <math>\leftrightarrow</math> Cognition Interface
- (7) a) *Memory based theories:* Cognition models environment:  
 The world is by itself unapproachable  
 → Tools: Memory based constructions
- ⇒ Primacy of mental processes
  - ⇒ Primacy of the *knower*
  - ⇒ Cognition is basically active
  - ⇒ Memory based constructions mirror the 'conquest' of the world by cognition and its gradual 'accommodation' to cognition.
  - ⇒ Increasing 'resolution' of world experience
  - ⇒ Schemas are experiential (non-innate theories) or part of the evolutionary setting of cognition (innate theories)

- (8) b) *Vulgar Whorfism / Vulgar Objectivisms*: Environment models cognition  
 → Outer World has primacy, configures the tabula rasa of cognition  
 ⇒ Mental processes are secondary (adaptive)  
 ⇒ World has its 'objective' structure (Eigengestalt)  
 ⇒ Schemas are experience based images of the world  
 ⇒ Object of knowledge becomes the subject of 'becoming known'.  
 ⇒ Cognition is basically receptive.
- (9) c) *Ecological Psychology, Information Pickup Theory*: Cognition takes shape in environment ~ environment takes shape in cognition  
 → Cognition is epiphenomenon of 'body'  
 → 'Body' experiences environment by constructing changes as invariant states
- (10) Some references:  
 ➤ Gibson, James J. 1966. *The Senses Considered as Perceptual Systems*. Boston: Houghton Mifflin.  
 ➤ Gibson, James J. 1977. The theory of affordances. In R. Shaw & J. Bransford (eds.). *Perceiving, Acting and Knowing*. Hillsdale, NJ: Erlbaum.  
 ➤ Gibson, James J. 1979. *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin.  
 ➤ Turvey, M., & Carello, C. 1981. Cognition; The view from ecological realism. *Cognition* 10: 313-321.  
 ➤ Turvey, M. T., & Shaw, R. E. 1979. The primacy of perceiving: An ecological reformulation of perception for understanding memory. In: L. G. Nilsson (ed.). *Perspectives on memory research: Essays in honor of Uppsala University's 500th anniversary*, 167-222. Hillsdale, NJ: Erlbaum.  
 ➤ Turvey, M. T., Shaw, R. E., Reed, E., & Mace, W. 1981. Ecological laws of perceiving and acting: In reply to Fodor and Pylyshyn (1981). *Cognition* 9:237-304.  
 ➤ Lombardo, T. 1986. *The reciprocity of perceiver and environment*. Hillsdale, NJ: Erlbaum.  
 ➤ Rod Swenson & Michael Turvey 1991. Thermodynamic Reasons for Perception-Action Cycles. *Ecological Psychology* 3(4):317-348.  
 ➤ Neisser, U. 1976. *Cognition and Reality*. San Francisco: W.H. Freeman.
- (11) Based on: Vladimir Ivanovič Vernadsky (1868-1945)  
 Vernadsky, Vladimir I. 1924. *La géochémie*. Paris: Alcan.  
 Vernadsky, Vladimir I. 1929. *La biosphère*. Paris: Alcan.
- (12) Environment takes shape because of the interaction of cognition(<>body) with it.  
 → Basic synergetic dualism 'animatum-environment'  
 → Perception takes place on the basis of body posture and body functions (proprioception)  
 → Environment gets experienced according to the movement (> behavior) of an 'active organism' in itself.  
 → Individuals move in the world in order to perceive, and they perceive in order to move in the world.
- (13) *The Perception-Action Cycle*:  
 „(...) directed behaviors of animals comprise continuous cyclic relations between the detection of information and the performatory and exploratory activities that serve, in significant part, to facilitate that detection and which, in turn, are guided and shaped by it“. (Swenson & Turvey 1991:319).
- (14) The Cognition<>Environment Interaction is conditioned by energetic features: The PAC guarantees the acquisition of energy in order to guarantee the PAC.
- (15) The individual 'depends from' the PAC to acquire energy by applying energy.

- (16) The lower the 'consumption' of self-energy is, the more the individual profits from the PAC
  - Cognition combines the PAC with an 'energy hypothesis' (> Force Schema)
  - Force Schema: An object in the outer world is judged upon the amount of energy necessary to interact with the object.
- (17) Energy: both bodily and 'mental' (cognitive) [> Zipf's Law]
- (18) Human being (cognition <math>\leftrightarrow</math> body) is constantly confronted with a variant 'space experience', conditioned by 'motion' (of cognition <math>\leftrightarrow</math> body and/or outer world object).
- (19) Outer world objects are 'stabilized' by cognition in terms of 'permanence hypotheses' (referential ('object') permanence (Piaget), relational permanence).
- (20) 'Gestalt' is *not* an original property of an object, but expression of the kind of experience (*Zugangsart*) exerted by an animate being.
- (21) The relation *nower-known* is not weighted: Environment *forces* the individual into a knowledge, just as the individual contributes its knowledge to the environment.
- (23) Experience is governed by the neurophysiology of the sensoric apparatus.



- (24) → Selective extraction and interpretation of a world stimulus (WS).
- (25) *Examples (visual)*
  - ⇒ Binocular constructions (stereopsis) is based on binocular disparity.
  - [Binocular disparity: Correlation between doubled locus of retina and experienced distance: Anti-iconic: Foveal distance signals nearness, foveal nearness signals distance:]



- ⇒ Stroboscopic motion: sham motion of subsequent states
- ⇒ ‚Motion Parallax’: Motion of near objects is processed as ‚quicker’ than that of distant objects (with the same speed).
- ⇒ Sham motion: Self-motion interpreted as ‚other-motion’.
- ⇒ Interposition: Near objects tend to overlap distant objects
  - ⇒ Figure-Ground-Perception
- ⇒ Autokinetic effect (construction of a stationary singularity in space as being in motion).
- ⇒ Elevation: The nearer an object is ‚seen’ to be to the horizon, the more distant it is construed.
- ➊ Size-Distance Invariance Hypothesis: Re-interpretes size/distance relativity (size of retinal image of an object is relative to its distance: the smaller the image, the more distant the object).
- ⇒ Size Constancy: Object permanence despite of changes in retinal imaging.

(26) *Generalizations:*

- Prelinguistic schemas are based on
- ⇒ PAC: Reduction von PAC tokens into ‚types’ (→ Reduction of energy efforts)
- ⇒ Individual schematizes its reactional tokens into types (> basic constructions)
- ⇒ Basic Invariance Hypotheses: ‚World’ represents a stable ground for individual (= figure): ‚The individual moves *in* the world’ instead of ‚world moves around/with the individual’).
- ⇒ Objects are construed as being ‚the same’ even from different perspectives.
- ⇒ Motion schemas (PAC) motivate orienteering and localization schemas.
- ⇒ The schematization of a ‚gestalt’ is based on a motion experience in relation to the object:
  - e.g.: A line is a line because I can pursue it (by body or by eyes)
- ⇒ The object governs experience because of its shape.
- ⇒ Experience (< PAC) governs the shaping of an object.
  - E.g. ⇒ Upper objects are ‚marked’ (more energy) => UP *is* MORE
  - ⇒ Lower objects are unmarked (less energy) => DOWN *is* LESS
- ⇒ Slow motion around/relative to an object > large
- ⇒ Quick motion around/relative to an object > small

⇒ PAC conditions accessibility hypothesis (distance = Motion x Energy)

⇒ Estimation of self-motion in relation to other-motion (proportional)

⇒ The more energy is thought to be necessary, the less accessible an object is construed.

⇒ The more energy is thought to be necessary, the more energy is attributed to the object.

⇒ Consequences:

⇒ Object is construed as stronger;

⇒ Object is construed as more distant;

⇒ Object is construed as more mobile;

⇒ Object is construed as more 'marked' and more 'specific'.

⇒ Object is construed as 'lesser known'

⇒ The fewer energy is thought to be necessary, the more accessible an object is construed.

⇒ The fewer energy is thought to be necessary, the fewer energy is attributed to the object.

⇒ Consequences:

⇒ Object is construed as weaker;

⇒ Object is construed as closer;

⇒ Object is construed as less mobile;

⇒ Object is construed as less 'marked' and less 'specific'.

⇒ Object is construed as 'more known'.

(27) *Further generalizations:*

⇒ Basic schemas are iconic (somatic) 'reactions' upon the dynamics of the sensoric architecture.

⇒ Memory based theories: Schemas are part of the processing mode of experience (*cognitive experimentalism*)

⇒ Emergence: Schemas result from the qualification of high quantity input 'types'.

⇒ Recursive effect: Experience > Schema > Experience

⇒ Embodiment: The structural coupling of cognition and body forces cognition to schematize according to bodily experience and the conceptualization of body 'parts' (see below).

⇒ Recursive effect: Body 'speaks' as cognition operates (schematizes gestures etc.)

(28) Schemas represent the 'cognitive embodiment' of experience.

(29) Basic entrenchment: Connections correspond to basic schematization.

(30) The growing complexity of connections conditions a growing complexity of schemas (> metaphorization).

(31) Synthesis:

☛ Schemas are complex experiential patterns that result from the structural coupling of:

PAC ● Sensoric architecture ● Memory type [Typenbildung]

⇒ The degree of coupling can be variant:

E.g.: Primary motoric-based schemas (PAC)  
Primary sensoric-based schemas (e.g. visual)  
Primary knowledge-based schemas

⇒ Primary (prelinguistic) schemas are:

⇒ iconic (PAC, sensorics)

⇒ pseudosymbolic (imitative)

⇒ profiling (shaping)

⇒ Gestalt phenomena are secondary schemas that stem from profiling routines.

⇒ Profiling: To construe 'objects' as gestalts which can be processed with the help of primary schemas.

⇒ Schema Blending:

⇒ Schemas interact and produce new (in parts more complex) schemas:

E.g. Interposition + distance > Figure - Ground (⇒ Gestalt)

The 'Gestaltung' of F/G (selection)

F = Mobile

G = Immobile

F = Discrete

G = Substance

F = With boundaries

G = Without boundaries

F = Smaller

G = Larger

⇒ *Blending* allows a higher degree of variance within the cognition<>environment interaction.

(32) *Metaphorization of schemas:*

→ Activation of a specific processing mode based on a similarity hypothesis in relation to basic schemas:

E.g.	<i>Target</i>		<i>Source</i>
	Period of time	<i>is</i>	distance
	Force	<i>is</i>	PAC
	Self-dynamics	<i>is</i>	Autokinetic effekt
	Process	<i>is</i>	Motion (PAC) [in time]
	Caus->Effect	<i>is</i>	Figure->Ground
	Singularity	<i>is</i>	Figure
	Property	<i>is</i>	Ground
	Relation	<i>is</i>	Process (< Motion) ● Variance

## II) THE LINGUISTICS OF COGNITION

(33) Language based processing of world experience is an integral part of cognition.

(34) The specifics of language are related to articulated communication:

→ Intra-individual communication => Thought (Reflection)

→ Inter-individual communication => Articulated interaction of more than one cognition.

(35) Communication: Neurally based on Mirror Neurons (and the metaphorization of their activities).

→ Basic Hypothesis: Communication is 'receptor-based', *not* 'directed':

→ Cog2 interpretes its neural mirroring activities of a Cog1-activity as 'communication by Cog1'.

(36) Process:

Cog1 articulates a mental 'state'.

=> Cog2 mirrors the articulation of Cog1.

=> Cog2 gets into a state more or less analogic to that of Cog1.

=> Cog2 interpretes this 'state' as 'information'.

=> Cog1 mirrors the articulation of the change of state by Cog2.

=> Cog1 interpretes the 'change of state' in Cog2 as initiated by itself.

Generalization / Construction

=> Cognition construes the mirroring experience as 'communication'.

(37) *Definition:*

→ Communication is the mirroring (> experience) of a stimulus in that part of cognition that is not involved in the production of the stimulus.

→ If the stimulus stems from the 'Outer World', the whole cognitive system is potentially involved in the mirroring process:

→ Outer World -> Cognition (-> Outer World) Communication

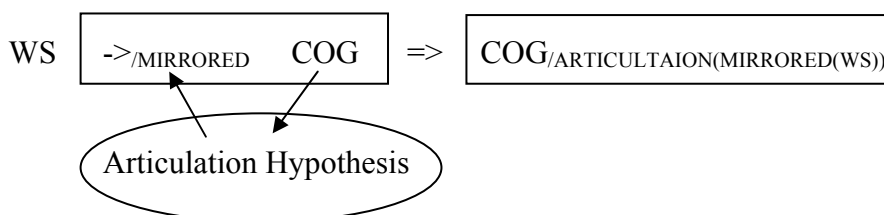
→ If the stimulus stems from cognition itself, that part of cognition is involved in the mirroring process that does not produce the stimulus:

→ Cognition -> Cognition Communication (Reflection)

(38) *General Mirror Scheme:*



(39) *Language Specific Mirror Scheme:*



- (40) *Convention:*  
 WS = Outer World Stimulus  
 $\bar{w}s$  = mirrored WS (construction of WS)  
 $\bar{w}s_\gamma$  = Language oriented/governed mirrored WS
- (41) *Axiomes:*  
 a) Cognition does not process an Outer World Stimulus (WS) itself, but its mental construction.  
 b) The mirroring of an Outer World Stimulus is filtered by a perception/communication hypothesis, e.g.  
 → A visual input is construed as 'visible';  
 → An auditive input is construed as 'audible'
- (42) The mirroring of a WS does not happen in terms of 'anologeous imaging' (or: 1-1-mapping), but in terms of *contortion*:

The perception hypothesis conditions the contortion of WS mirroring:

$$WS \quad \Rightarrow_{/X} \quad \bar{w}s_X$$

→ Any  $\bar{w}s$  reflects both WS *and* the contortion process related to the perception of WS.

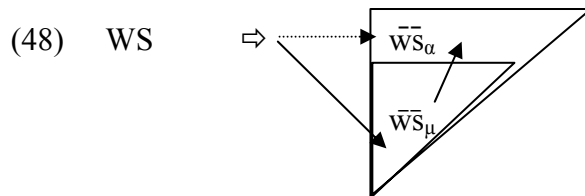
- (43) Language-based, communicative mirroring involves two types of contortion:  
 → Perceptual contortion  
     → Visual, auditive, tactile etc...  
     → Memory stimulus  
 → Linguistic (knowledge-based) contortion

$$WS \quad \Rightarrow_{/\gamma} \quad \bar{w}s_\gamma$$

- (44) Linguistic contortion: A WS input is processed according to hypotheses of how to communicate its construction.
- (45) Linguistic contortion results from the metaphorization of perceptual contortion *plus* language specific (articulation) constraints.
- (46) *Three terms:*  
 Somatic (Greek σῶμα 'body')  
 → The presentational (non-conceptual) reaction upon an WS  
 Poietic (Greek ποιέω 'create, produce' > ποίημα 'production')  
 → The representational, habitualized, tacit reaction upon a WS  
 Pragmatic (Greek πράττω 'orient o.s. towards s.th.' > πράγμα 'behavior, procedure')  
 → The (habitualized) manipulation of poietic routines active during the reaction upon a WS
- (47) Any (contorted) construction of a WS is memory-based and memory-induced:

→ The construing reaction upon a given world stimulus takes place by structural coupling with the activation of stored analogies of this world stimulus (*experiential reduction*).

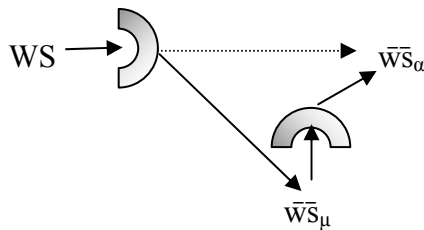
[New experience is always processed in terms of patterns emerging from ‘old knowledge’ [*Menōn paradoxon*]].



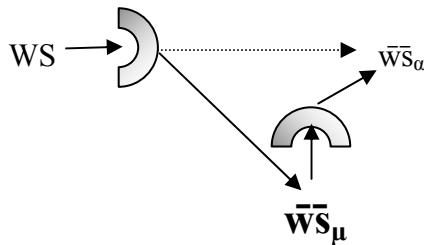
[ $\mu$  = memory stored (habitualized) patterns /  $\alpha$  = actualization]

$\mu/\alpha$ -mapping corresponds to cognition-internal mirroring techniques.

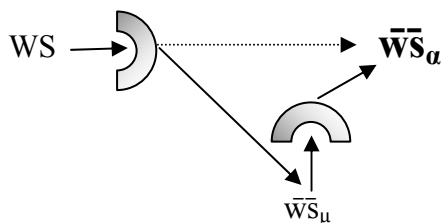
→ Any WS initiates a doubled mirroring process:



(49) a) The stronger  $w̄s̄_\mu$  is, the more *poietamic* the processing event is.



b) The stronger  $w̄s̄_\alpha$  is, the more *pragmatic* the processing event is.



c) Somatic processing does not involve a  $\mu/\alpha$ -mapping.

Note: For sake of simplicity, the schemes above neglect the activities of framing, scripts and encyclopedic/habitual knowledge.

- (50) Contortion within the mirroring process conditions the reduction of WS properties:  
 → Diairesis (Greek διαίρεσις 'separate, distinguish, decide, interpret (med.)')
- (51) Diairesis = Schema- and memory-based reduction of WS properties mirrored in  $\bar{w}s_{\alpha}$ .  
 → Gestalt 'attribution'
- (52) Example (German, spontaneous reactions):



- Der telefoniert, der Mann* (2,5 years)  
 [\*He phones, the man]
- Da ist ein Mann, der telefoniert* (4,11 years)  
 [\*There is a man who phones]
- Da telefoniert ein Mann* (6,5 years)  
 [\*There phones a man]
- Da sitzt ein Mann am Schreibtisch und telefoniert* (36 years).  
 [\*There sits a man at [his] desk and phones]
- Ein Büromensch, der am Bürotisch ein wichtiges Telefonat führt*  
 (62 years)  
 [\*An office-person who is having an important telephone conversation at the office table]

- (53) Figure: Mann [*man*] {~ Büromensch}  
 Relation: Telefonieren [*phoning*] {~ Telefonat führen}  
 Ground: Da [*there*] {~ [sitzen] am Schreibtisch; am Bürotisch}

(54) **Diairesis Types:**

BASIS: Perception Action Cycle (PAC):

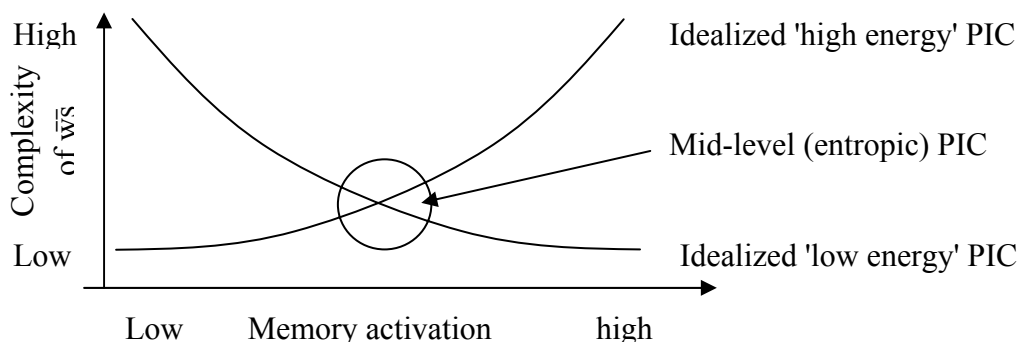
Cognition 'calculates' the 'mental' energy (effort) to mirror a WS

→ Perception Action Cycle => Perception Information Cycle (PIC)

Energy necessary to perceive a WS depends from:

- the complexity of WS
- the knowledge state (memory) of Cognition

Cycle: Perception supplies Cognition with Information to perceive.



Energy (> Information) Input Hypothesis: The degree of energy (> memory supply) related to a WS

Energy (> Information) Output Hypothesis: The degree energy (> memory activation) related to the perception of a WS

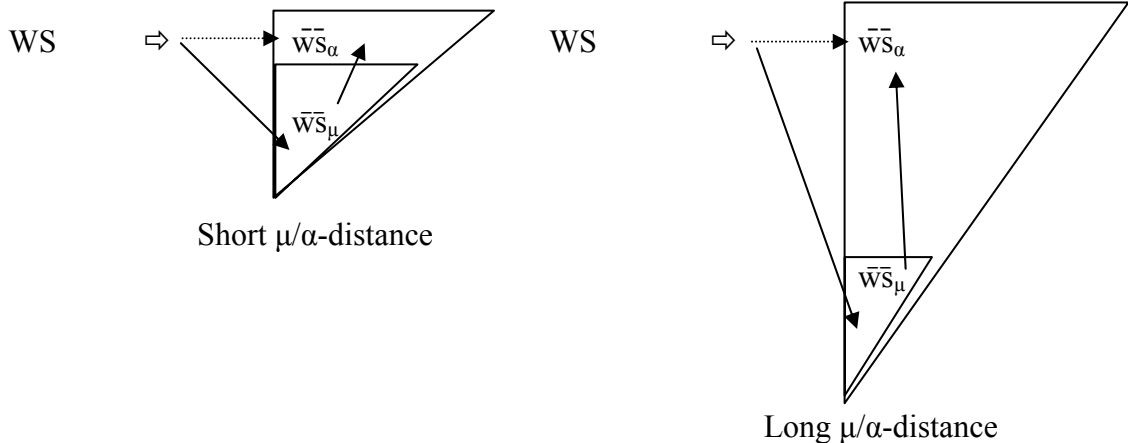
Energy (> Information) State: The memory state of Cognition with respect to a WS

**Any WS is unmarked for Complexity (all WS are equally complex).**

→ The high resolution of a WS mirroring is coupled with an energy (> information) hypothesis:

→ The more complex a WS is construed, the more Cognition is 'supplied' with information.

→ High resolution ( $\Rightarrow$  complex constructions) is stimulated by 'energy' (> information) 'plight' (that is, much cognitive effort is needed to realize a  $\mu/\alpha$ -match):



→ High resolution ( $\Rightarrow$  complex constructions) may also be stimulated by the availability of 'energy' (> information) (*abundance*  $\Rightarrow$  explicitness).

*Summary of PIC-Types (HR = High resolution; LR = Low Resolution)*

Cognition				WS-'Judgment'	
Energetic state				Energetic state (supply)	
				High	Low
High	HR	$\Rightarrow$	[Economic]	Compensating	Unbalanced
	LR	$\Rightarrow$	[Luxury]	Waste	Economic
Low	HR	$\Rightarrow$	[Expensive]	Provision	Excessive
	LR	$\Rightarrow$	[Adequate]	Economic	Compensating

→ **Experiential diairesis:** Mirroring of WS is contorted because of experiential routines (see section 1):

→ Figure-Ground

→ Motion (Figure 'on' Ground *or* Ground 'behind' Figure)

→ Orienting (egocentric Figure-Ground attribution)

→ Changes with the Figure domain / Ground domain

→ General shape variation → Transfiguration

→ Specific or partial shape variation

→ Distance

→ **Gestalt-based diairesis:**

→ Nearness: Elements that are closer to each other are grouped together.

→ Figure-Ground discrimination: Figure is profiled, ground is out of focus / blurred.

Standard Features: Force, nForce, degree of penetration (degree of overlapping G->F), self-construction with respect to WS

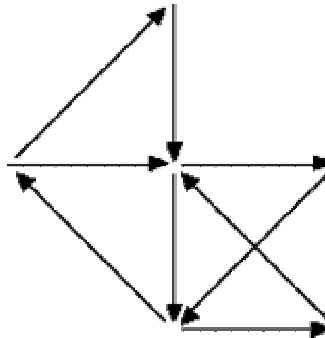
→ Resemblance: Segments perceived as similar are grouped together.

- Closedness: There is a preference to construe 'objects' as closed/profiled (> inference).
- Symmetric elements are interpreted as 'unity' (> Figure).
- Complexity reduction: Complex structures are treated as 'simple, profiled' structures.
- Ordered elements (or: elements in a perceived sequence / line) are grouped together.
- An 'entity' is perceived as a gestalt especially if a similar gestalt experience is already stored in memory (see above).
- **Conceptual diairesis:** Mirroring of WS is contorted because of conceptual (memorized) routines (Gestalt perception).

Basis: ⇨ Conceptualization results from the 'interpretation' of a repeatedly activated (entrenched) neural event as 'independently active' unit.

⇨ Hebb, Donald Olding [1904-1985] 1949. *The Organization of Behavior: A neuropsychological theory*. New York: Wiley.

"The neurons that fire together wire together" (Hebb 1949,vii):



- ⇨ 'Cell-assembly' is a primitive form 'representation'. More precisely: A 'cell-assembly' is the neural 'plastic' of a representation'
- ⇨ 'Cell-assembly' results from the interaction of 'plastic' processes (< genetic) and bi-directional processes (experience).
- ⇨ If a 'cell-assembly' integrates the motoric domain of articulation specifically, an 'articulated representation' emerges.

### Effects:

- Paradigmatization
  - Categorization
    - Family resemblance
    - Thetic / Categorical
    - Radial
    - Prototypical
- Higher Level Schemas
- Fiction (*fictive (metaphorical)* extension of experiential diairesis routines)
  - Fictive Figure-Ground
  - Fictive motion
  - Fictive changes etc.

## Embodiment

Conventions:

β	Embodiment
Hβ	Human embodiment
Aβ	Fauna (animal) embodiment
Pβ	Flora (plant) embodiment
Lβ	Landscape embodiment
Cβ	Cosmological embodiment

**Definition:** Embodiment denotes the activation of conceptualized bodily experience during the diareisis process in terms of metaphorical inflation (or: Projection of a WS onto a body related concept).

→ Bodily experience:

- a) Hard-wired (cognition-(self-)body)
- b) Soft-wired (experience based)

→ Hard-wired embodiment is *more immediate* than soft-wired embodiment:

E.g.: Something moves *as if* self-body moves

→ A car moves 'because' the eyes move during input.

[„Early spatial schemas are directly grounded in bodily experience, in the sense of movements of one's body and of other objects in relation to one's body”  
(Sinha/Jensen de López 2000 in *Cognitive Linguistics* 111:17-41, with critics)]

→ Head <i>is</i> beginning	Aβ (!) [Snake metaphor]
→ Back <i>is</i> behind is starting point	Hβ [Line towards starting point]
→ Back <i>is</i> upper border line	Aβ (!) [Horizontal line]
→ Foot <i>is</i> ground > below	A/Hβ [Ground contact metaphor]
→ Heart <i>is</i> inside > interior	A/Hβ [Organic metaphor]
→ Body parts <i>are</i> social group	Hβ [Meronymic metaphor]

1 Cor 12:25-27

25 ἵνα μὴ ᾖ σχίσμα ἐν τῷ σώματι ἀλλὰ τὸ αὐτὸ ὑπὲρ ἀλλήλων μεριμνῶσιν τὰ μέλη.

26 καὶ εἴτε πάσχει ἐν μέλος, συμπάσχει πάντα τὰ μέλη· εἴτε δοξάζεται [ἐν] μέλος, συγχαίρει πάντα τὰ μέλη.

27 Ὑμεῖς δὲ ἐστε σῶμα Χριστοῦ καὶ μέλη ἐκ μέρους.

[25 That there should be no schism in the **body**; but *that* the **members** should have the same care one for another.

26 And whether one member suffer, all the **members** suffer with it; or one member be honoured, all the **members** rejoice with it.

27 Now ye are the **body** of Christ, and **members** in particular. / KJV]

NOTE: Embodiment is a basically *diachronic* phenomenon: Source and target domains are often acquired in terms of parallel processes.

→ Anachronistic ontology of language

→ Most (substantial) embodiment processes are accompanied by 'disguising' features that distort the original source-target relation, e.g.

*Je vais à l'école*

*I am going to school.*

*Je vais [\*à] écrire*

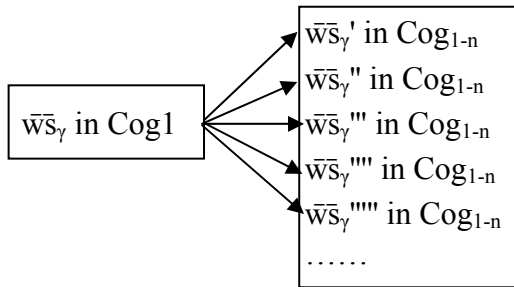
*I am going to write.*



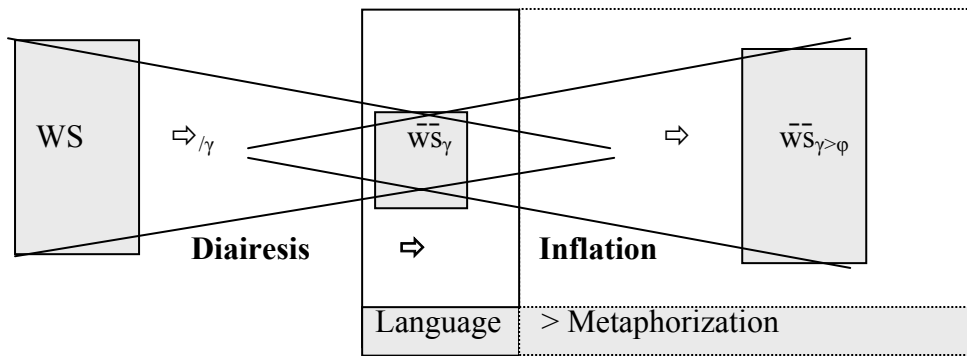
→ Language-specific diairesis: Constraints on WS mirroring based on language specific paradigmatics (habitualized, entrenched during language acquisition)

(55) Attention Flow: The cognitive attentional attitude towards a WS

(56) Inflation: The one-to-many-mapping (or: metaphorization) of a diairetic 'output':



(57) Synthesis: *The Diairesis Inflation Continuum (DIC)*



[WS = World Stimulus,  $\bar{w}\bar{s}$  = cognitive event induced by World Stimulus (mirrored),  $\gamma$  = language/communication based conceptualization,  $\phi$  = Metaphorization]

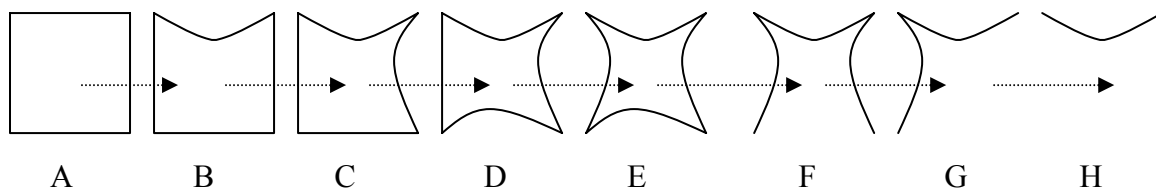
(58) Information Flow: The cognition informational attitude towards a 'partner'

(59) Attention Information Flow (AIF): Basic organization templates of the linguistic expression of the Diairesis Inflation Continuum (> Phrasal Information Space (PhIS) > 'utterance').

(60) Metaphorization is the only way to process a diairetic output.

→ Metaphorization denotes the totality of cognitive mapping strategies which again are scaled according to a 'similarity parameter'.

(61) *A gestalt-based metaphorization chain*



(62) Iconicity: Gestalt properties of a WS are construed in  $\bar{w}\bar{s}$  in terms of analogous mirroring. E.g.:

→ Near segments are grouped together:

*I have taken the woman's coat.*

*\*I have the woman's taken the coat*

*?\*I have the coat taken the woman's* [note: woman's < \*\*woman \*\*his]

→ Grouped linguistic structures are processes as 'unity':

Huasteca Nahuatl:

*ya' ki-kocillo-tete'ki panci*

(s)he it-knife-cut bread

'(S)he cut the bread with the knife.'

→ Similarity => Paradigmatization

→ Figure-Ground: *Any* WS is linguistically expressed in terms of a figure-ground relation (or a metaphor thereof).

→ Closedness: The construction of a 'closed' segment is expressed in terms of a profiled (delimited) 'unity'.

→ Symmetric segments are grouped together.

→ Complex gestalts are reduced to more simple ones.

→ The basic asymmetry of F/G conditions a basic asymmetry in PhIS (< PAC)

(63) Higher Level WS: WS 'loaded' by  $\bar{w}\bar{s}$ -phenomena:

→ Linguistic WS (inter-individual communication)

→ Memory recall (intra-individual communication)

→ The perception of a linguistic WS:

$\bar{w}\bar{s}_\gamma$  => articulated =>  $WS_\gamma$  ...

→ A  $WS_\gamma$  is processed just as any other WS except that it *immediately* activates linguistic knowledge and structurally narrows down the diacresis options of the perceiver.



Figure  
*child*

->

Ground  
*water*

Figure-Ground identification

Posture (< -Motion / Verticality)

*stand*

*child stand-s*  
*water*

Nearness (iconic)

*child stands*  
*in=water*

Container Schema blended with

[*a child stands*]  
*in=water*

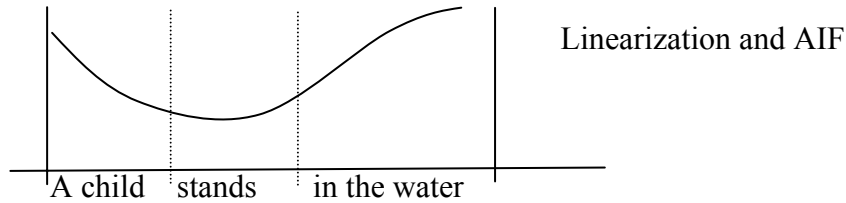
$\mu/\alpha$ -distance with Figure (> indefinite)

[*a child stands*]  
[*in the water*]

$\mu/\alpha$ -nearness with Ground (> definite)

#[*a child stands*]  
[*in the water*]

Closedness



[Complex variant: A small child standing/walking in the water/in a lake looks down cautiously watching its steps.]

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