

Phenomenology and Enaction

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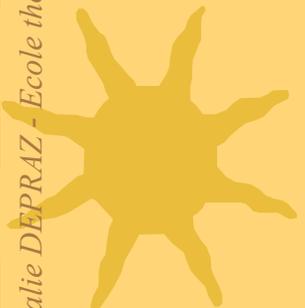
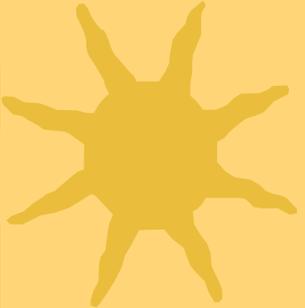
Summer school: Cognitive sciences and
Enaction

(Fréjus, 5-12 september 2007)

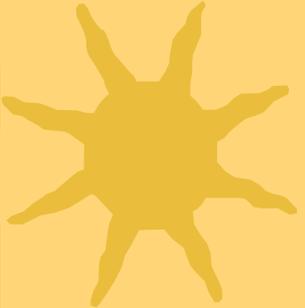


Summary

- ★ Introduction
- ★ 1) The presence of phenomenology in the founding project of enaction.
- ★ 2) How are enaction and Husserlian phenomenology transformed through each another.
- ★ 3) Where is enaction in the neurophenomenology program?
- ★ 4) Phenomenology as transcendental empiricism
- ★ 5) Phenomenology as praxis : a renewal thanks to enaction.
- ★ 6) A case study : attention at the core of phenomenology as praxis.



Introduction

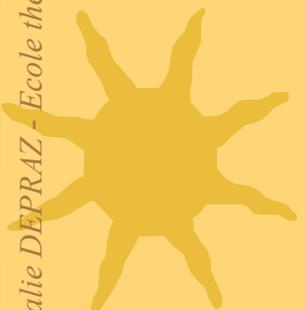
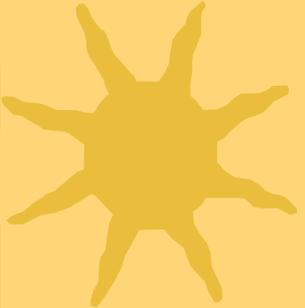


- ★ **Double move: (1) how phenomenology contributes to enaction/ (2) the way enaction fosters phenomenology.**
- ★ **(1) The scientist of cognition uses phenomenology in order to provide the enactive paradigm with a philosophical background (both methodological and ontological).**
- ★ **(2) The phenomenologist is interested with the enactive thrust because it helps renewing it as an experimental and operative praxis.**



Primacy given to the second move: the way enaction fosters phenomenology. Why?

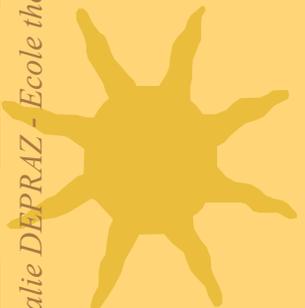
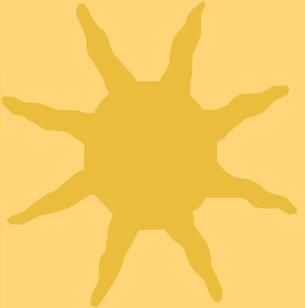
- **First: it is the goal of the Lessons proposed here: tackling the methodological and theoretical consequences of the enactive paradigm for my discipline: philosophy**
- **Second: my own actual interest is to estimate to what extent phenomenology may be « enacted »**





The importance of the first move: how phenomenology contributes to enaction

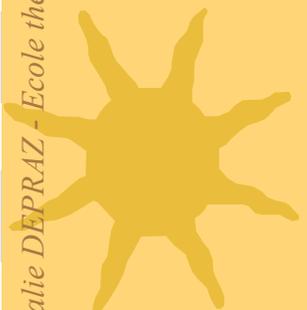
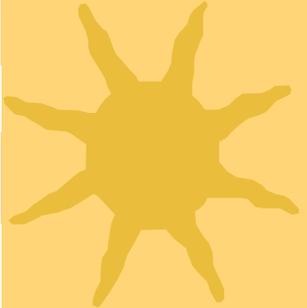
- ★ It is the *historical* condition of possibility of the second move.
- ★ It provides us with methodic keys in order to understand the second move.





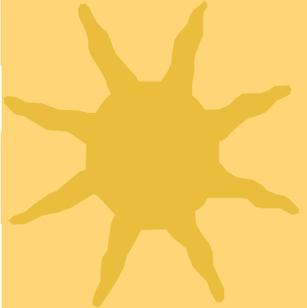
The general movement of our presentation

- ★ Keystone: the *organic* link between both moves
- ★ First move: first, because it corresponds to the historical *creation* of the link
- ★ From first to second: where phenomenology is not only used by enaction but using it.
- ★ Second move: the appropriation of enaction by phenomenology





Summary revisited by our general movement

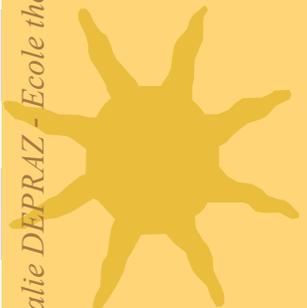
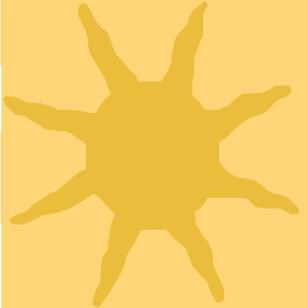


- ★ 1) The presence of phenomenology in the founding project of enaction: *first move*
- ★ 2) How are enaction and Husserlian phenomenology transformed through each another: from *first* to *second*
- ★ 3) Where is enaction in the neurophenomenology program? From *first* to *second*
- ★ 4) Phenomenology as transcendental empiricism. *Second move I: methodology*
- ★ 5) Phenomenology as praxis : a renewal through enaction. *Second move II: ontology*
- ★ 6) Case study, attention at the core of phenomenology as praxis: co-generating the *two moves*



First part: The presence of phenomenology in the founding project of enaction:

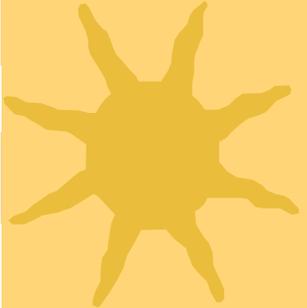
- ★ Which cognitive project?
- ★ — F. Varela, E. Rosch, E. Thompson, *The embodied mind* (1991)
- ★ — F. Varela, *Cognitive Science: A cartography of current ideas* (1988)
- ★ Which phenomenologists?
- ★ — Heidegger
- ★ — Merleau-Ponty





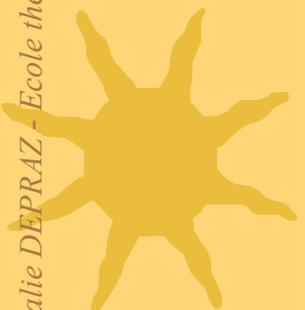
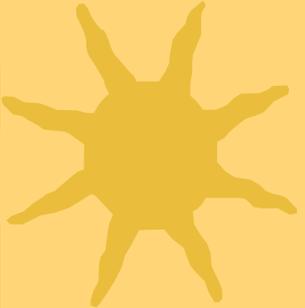
First part: The presence of phenomenology in the founding project of enaction:

- ★ a) The invention of enaction as embodied cognition (EM, ch.8)
- ★ a') Situating enaction within the cognitive paradigms (CS, ch.5)
- ★ b) The uses of phenomenology
- ★ b') « Mens »: a common enemy
- ★ Conclusion: a unitary background





a) *The invention of enaction as embodied cognition (EM, ch.8)*



- ★ Double introduction of « enaction » :
- ★ — H&S Dreyfus: *Mind over Machine* (1986)
- ★ — M. Heidegger, *Sein und Zeit* (1927); H.-G. Gadamer, *Wahrheit und Methode* (1960).



Double source of enaction: H. Dreyfus/M. Heidegger

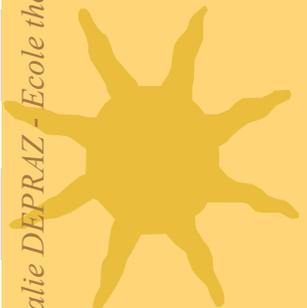
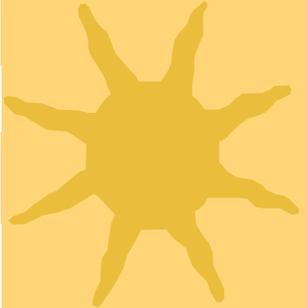
★ « Such commonsense knowledge is impossible to package into ‘knowledge that’ [...] It is a matter of readiness to hand or ‘knowledge *how*’ based on the accumulation of experience. » (EM, p. 148)

★ «The term hermeneutics [...] has been extended to denote the entire phenomenon of interpretation, understood as the *enactment* or *bringing forth* of meaning from a background of meaning. » (EM, p. 149)



Enaction as a critical epistemology

- ★ Critical of the dominant contention in the cognitive sciences: « cognitive realism » (objectivist/third person)
- ★ Anchored in the dominant contention in the Continental philosophy: « phenomenology » (world-dependent/embodyed)





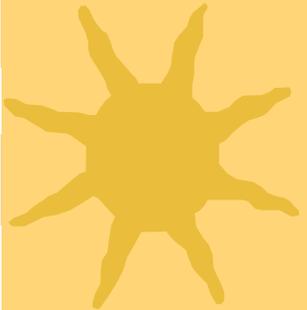
Who are the few allies of the enactivist?

★ Mark Johnson (EM, 150)

« Meaning includes patterns of embodied experience and preconceptual structures of our sensibility » (*The Body in the Mind*, 1987, p. 14)

★ M. Merleau-Ponty (EM, p. 174)

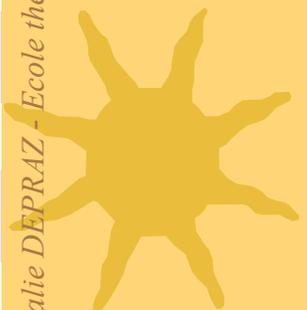
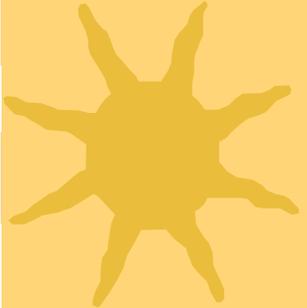
« (...) the form of the excitant is created by the organism itself, by its proper manner of offering itself to actions from the outside » (*The structure of behavior*, p. 13)





The theoretical challenge of enaction

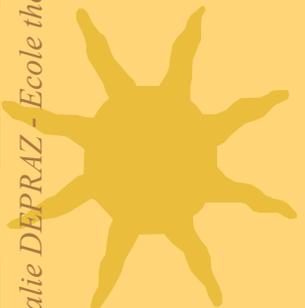
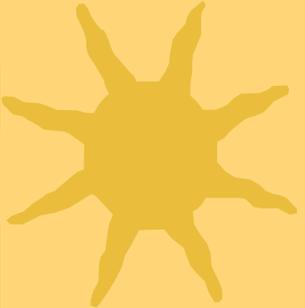
« The challenge posed by cognitive science to the Continental discussions [...] is to link the study of human experience as culturally embodied with the study of human cognition in neuroscience, linguistics and cognitive psychology. » (EM, p. 150)





General conceptual meaning:

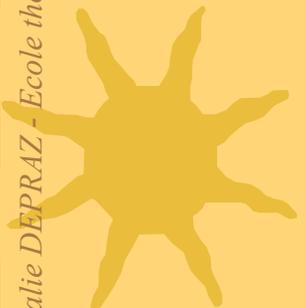
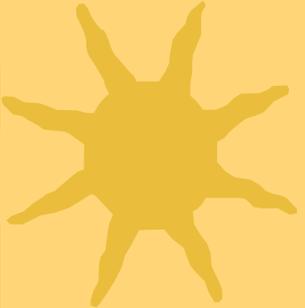
- ★ « The issues and concerns are not pregiven but are enacted from a background of action, where what counts as relevant is contextually determined by our common sense » (EM, ch. 7, p. 206).
- ★ MAIN DISTINCTION: PREGIVEN/ENACTED





Enaction and autopoiesis

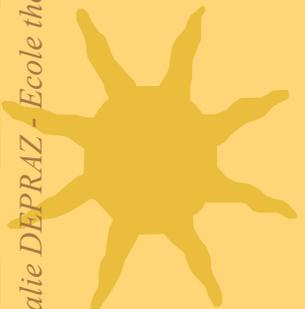
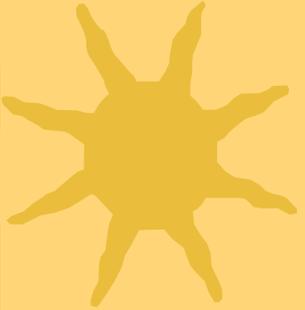
- ★ « By enriching our account to include this dimension of structural coupling, we can begin to appreciate the capacity of a complex system to enact a world. » (p.151)





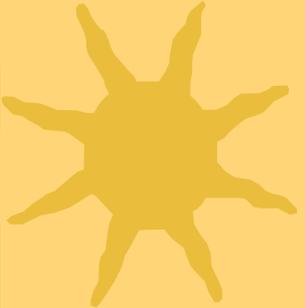
Only examples of enaction are truly enacting enaction

- ★ The colour as a leading thread
- ★ Held/Hein: the cats raised in the dark
- ★ Bach y Rita: blind persons
- ★ Freeman: animal's olfaction
- ★ Piaget: child's learning
- ★ Johnson/Lakoff: basic categorization in humans
- ★ Sweetzer: bodily linguistic schemes
- ★ Jaspers/Binswanger: embodied therapy (not in the french version; EM, pp. 179-180)
- ★ Gibson: bodily recurrent patterns create the living being





The biological meaning of enaction

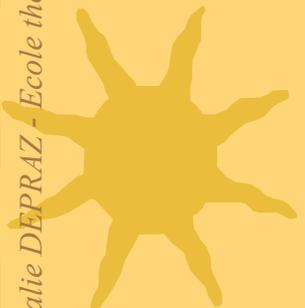


«(1) perception consists in perceptually guided action and (2) cognitive structures emerge from the recurrent sensorimotor patterns that enable action to be perceptually guided. » EM, 173



1. Sensorimotor capacities; 2. Embeddedness in a cultural and psychological context.

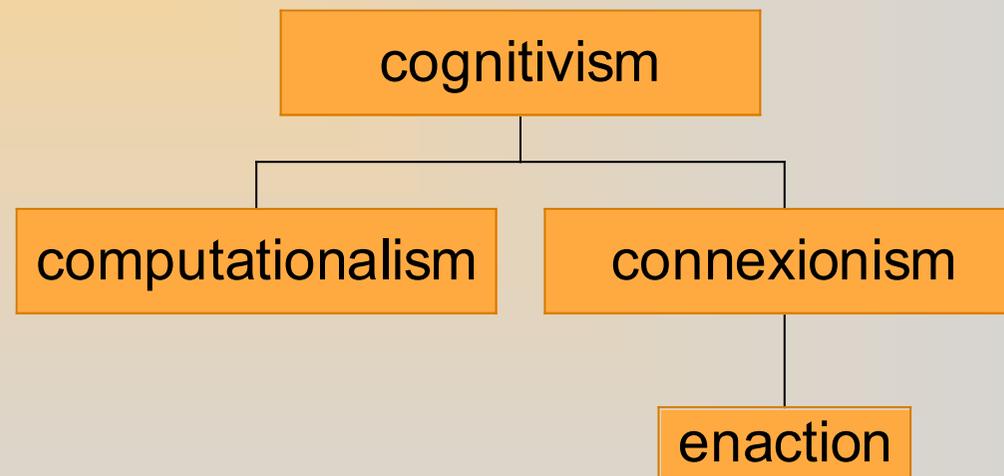
Conclusion:co-evolution/specification between perception and action : « not how some perceiver-independent world is to be reconstituted [...] but how action can be perceptually guided in a perceiver-dependent world. » EM, 173





a') Enaction in Cognitive science (1988)

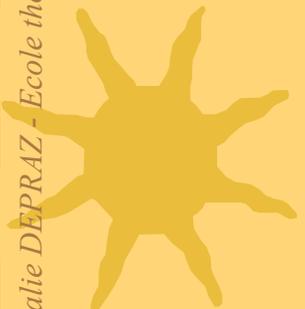
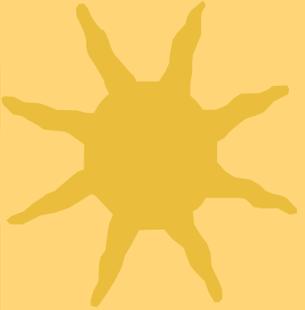
Enaction among cognitive paradigms





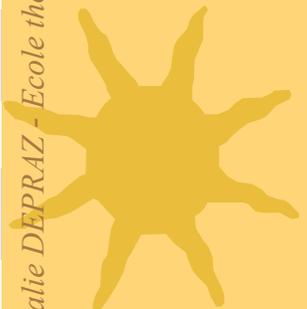
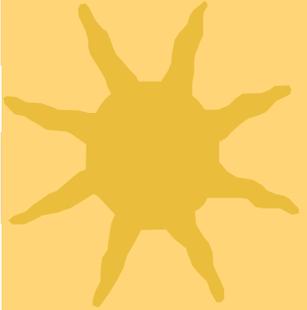
b) Two uses of phenomenology

1. As a philosophical framework (chap.2): philosophy of existence and of the lived experience vs. philosophy of representation and of reflexion.
2. As a methodical pioneer-thrust (chap.8): critics of dualism and promotion of a dynamic thought.





Merleau-Ponty 's Structure of behavior



« This approach to perception (enaction) was in fact among the central insights of the analysis undertaken by Merleau-Ponty in his early work. It is therefore worthwhile to quote one of his more visionary passages : '[...] it is the organism itself — according to the proper nature of its receptors, the threshold of its nerve centers and the movements of the organs — which chooses the stimuli in the physical world to which it will be sensitive. The environment (Umwelt) emerges from the world through the actualization or the being of the organism — [granted that] an organism can exist only if it succeeds in finding in the world an adequate environment.' quot. from SB, 1942, 11-12. » (EM, 173-174)

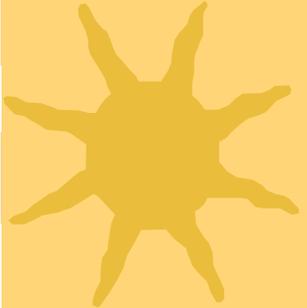


Interest and Limits of phenomenology

★ 1. Interest:

- Merleau-Ponty : exploration of the *entre-deux* between science and experience.
- Husserl : importance of the direct examination of experience

★ 2. Limit : a *theoretical* vision of the bodily pragmatical experience





Theory vs Pragmatics

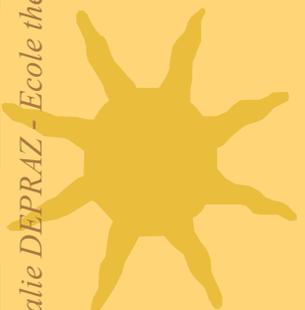
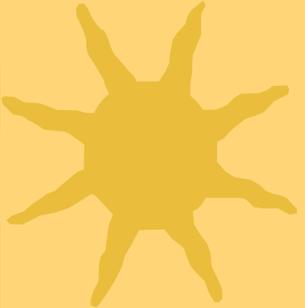
★ « Husserl's turn toward experience was entirely theoretical, it completely lacked any pragmatic dimension » (EM, 19)

★ About Merleau-Ponty:
★ « (...) by being a theoretical activity after the fact, it could not recapture the richness of experience; it could be only a discourse about that experience » (EM, 19)



b') « Descartes' mens »: the common enemy

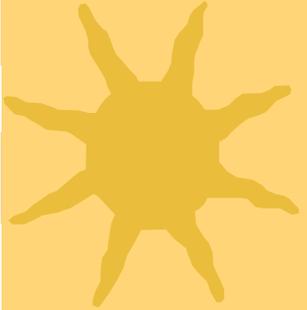
- ★ A disembodied mind:
 1. Representation
 2. Reflexion
- ★ A positive counterpart: the continuity between doing, experiencing and existing.





Conclusion of first part: the common ground

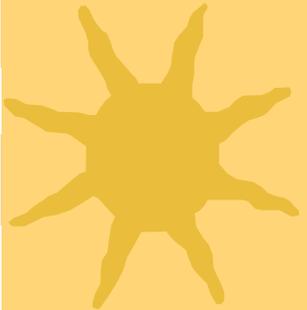
- ★ Continuity between the biological theory of autopoiesis and the phenomenology of life *qua* existence
- ★ How? The living being is a self-production self-generating its relationship with the other (context, environment, world, the others, society) 1. Enactive coupling/2. operative intentionality





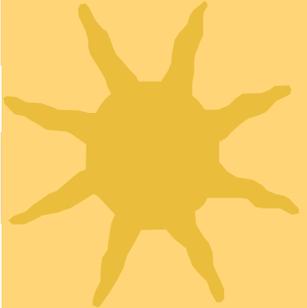
Second part: How are enaction and Husserlian phenomenology transformed through each another?

- ★ **N. Depraz, F. J. Varela & P. Vermersch, *On becoming aware : a pragmatics of experiencing* (Benjamins Press, 2003)**
- ★ Introduction: phenomenology is not used (as a means) by the enactive paradigm, it is transforming the latter and also transformed by it.
- ★ Change of method: co-transformation vs instrumentation





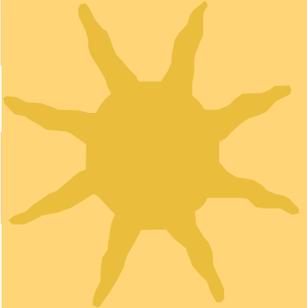
The name of enaction in On becoming aware: the practice



- ★ The extensive generic field of the practice (chap. 5: « Concerning practice »): enaction (biological epistemology) is one of the possibilities among others, practical reason (philosophy) praxis (Marx), pragmatism (Peirce, James), practitioners (psychotherapy and religion)
- ★ Difference with EM: Chap. 2: pragmatism quoted but not referred, merely opposed to theory; Chap. 5: narrow meaning of enaction: bodily sensorimotoricity



*« Practice is the privileged site
for grasping experience »*



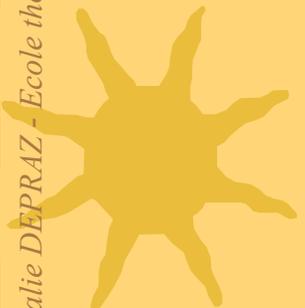
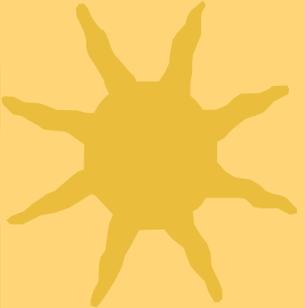
« We now direct our attention towards experience at the level of its praxis, which immediately takes us to the heart of the method privileged in this work: to describe the process of becoming aware from its very enaction, to describe it as it is carried out » (OBA, 155)



The mutual transformation of enaction and phenomenology

- enaction becomes practice: a method of exploring first person experience
- phenomenology becomes an« experiential pragmatics » (subtitle of OBA): a method of experiencing and of describing

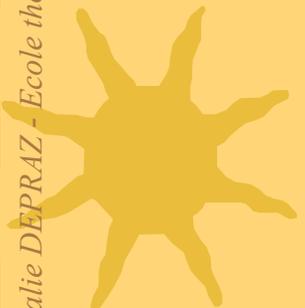
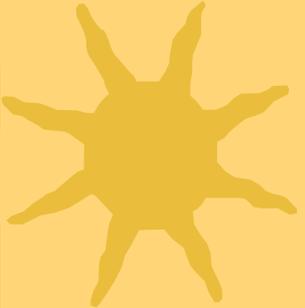
Hence the major task concerning the latter: unveil its practical dimension inherent in the motto Husserl's of a return to the things themselves but not thematized by him directly





Phenomenology qua Praxis

- ★ « Die Praxis steht überall und immer voran der 'Theorie'. »
 - *Hua XIV*, S. 61.
- ★ « [...] le règne de la perception dans la chair, qui confère aux mouvements charnels le sens de mouvements effectués égoïquement, se présente à nous comme une *praxis* du moi dans le monde et, à vrai dire, comme une *praxis originnaire* (Urpraxis) qui co-opère et a déjà par avance opéré pour toute autre *praxis*, à laquelle il appartient en même temps de ne s'exercer qu'à propos du corps de chair en tant qu'objet originiairement pratique.
 - *Hua XV*, n°18, p. 328. (My translation in P.U.F., 2001)

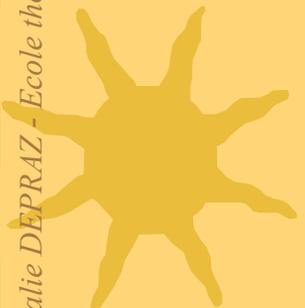
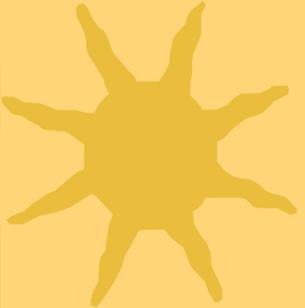




Why Husserl and not Merleau-Ponty or Heidegger?

- His interest for a careful, detailed and disciplined description of a first person experience
- His claim for situated and framed experiments (visual perception, lived time consciousness)
- His rigorous method of reduction as a gesture of suspending prejudices, of reflexive conversion and of eidetic variation

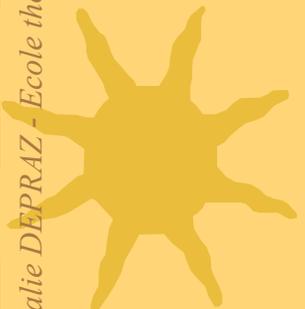
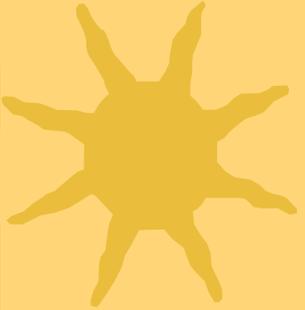
Conclusion: a more scientific approach





*The original thrust of OBA:
« Epochè » is an organic co-operation made of
three practical gestures*

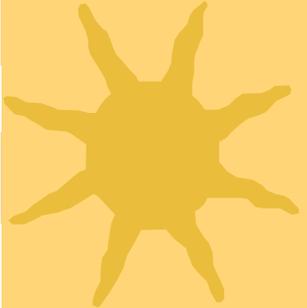
- Suspension
- Redirection
- Letting-go





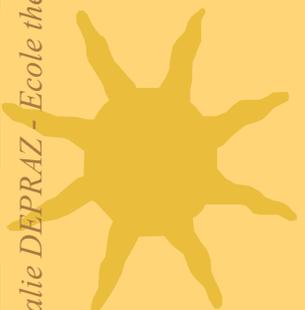
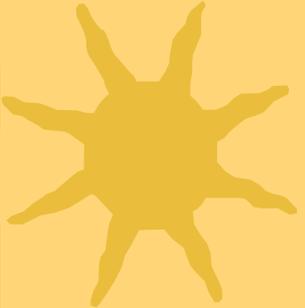
Practice as ontology and validation through practice

- Enaction and phenomenology are deeply linked, insofar as they refer to a unitary gesture preceding their distinction, named « operativity ».
- Epistemological contention: validation through practice
- Philosophical perspective: ontology of practice (to be done)





Third part: Where is enaction in the neurophenomenology program?



- ★ Two parallel ways for practice as a leading thread:
- ★ Part 3: neurophenomenology: the scientific (epistemological) program
- ★ Part 4: transcendental empiricism: the philosophical (ontological) program



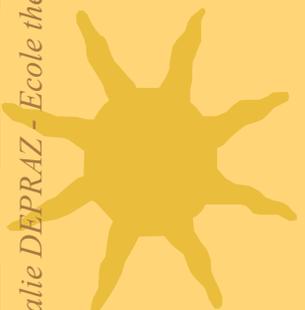
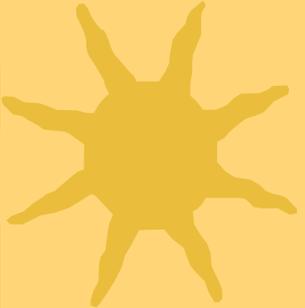
The name of enaction in the neurophenomenology experimental research program: « generative mutual constraints »

- Founding articles:

- ★ F. Varela «Neurophenomenology: a methodological remedy for the hard problem» *JCS* (1996)
- ★ F. Varela «The specious present. The neurophenomenology of present time-consciousness» in: *Naturalizing Phenomenology* (1999)

- Testing articles:

- ★ A. Lutz (with Lachaux, Martinerie, Varela), «Guiding the study of brain-dynamics using first person data», *PNAS* (2002)
- ★ A. Lutz (with Greischar, Rowlings, Ricard, Davidson) «Long-term meditators self-induce high-amplitude gamma synchrony during mental practice» *PNAS* (2004)





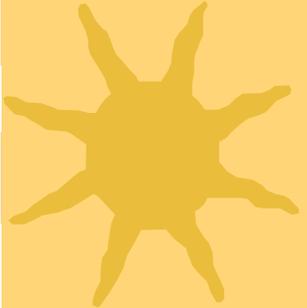
From generative constraints to radical embodiment

- Extending articles:

- ★ F. J. Varela & N. Depraz, « At the source of time: Valence and the constitutional dynamics of affect » (1999), *JCS* (2004)
- ★ F. J. Varela & N. Depraz, « Imagining. Embodiment, phenomenology and transformation » in: *Buddhism and Science* (2002)

- Integrating articles:

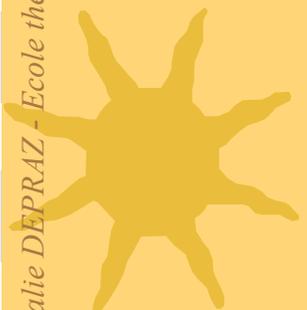
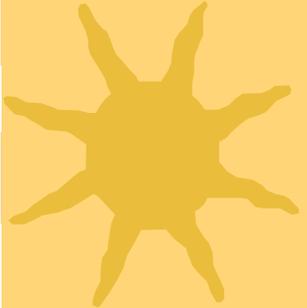
- ★ E. Thompson & F. Varela, « Radical embodiment: neural dynamics and consciousness », *TCS* (2001)
- ★ A. Lutz & E. Thompson, « Neurophenomenology. Integrating Subjective Experience and Brain Dynamics in the Neuroscience of Consciousness », *JCS* (2003)





What is neurophenomenology?

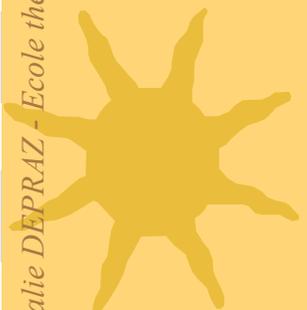
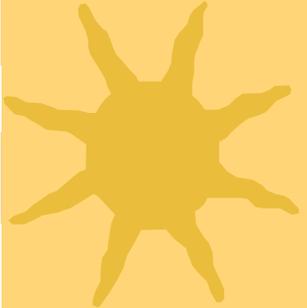
- ★ A 1996 working hypothesis: «Phenomenological accounts of the structure of experience and their counterparts in cognitive science relate to each other through reciprocal constraints»
- ★ Negative description: neither reductionist (explaining first person lived experiences by third person data), nor isomorphic (correlating both without any mutual relation)
- ★ Positive description: the challenge of a reciprocal production of novelty





From reciprocal constraints to generative passages

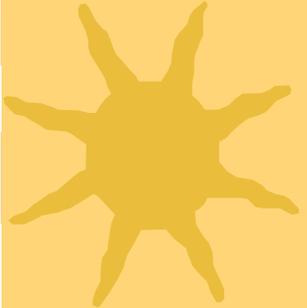
- ★ 1996: mutual determination remains static
- ★ 1997: co-generativity becomes dynamic: it does better « justice to the genetic or emergent dimension of experience » (2002)
- ★ References: F. Varela, « The naturalization of phenomenology as the transcendence of nature » (*Alter*, 1997); A. Lutz, « Toward a neurophenomenology as an account of generative passages » (*PCS*, 2002)





« Mutual generative constraints »: which method ?

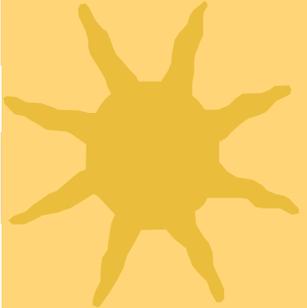
- ★ 1997: « Move beyond a simple phenomenal isomorphism and offer the generative passages between the phenomenal accounts and their neurobiological counterparts »
- ★ 1999: «It is an active link, where effects of constraints and modifications can circulate effectively, modifying both partners in a fruitful complementarity»





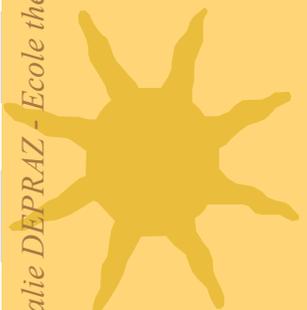
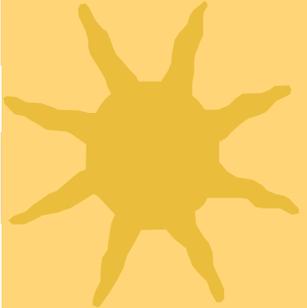
« *Enacting* » *the co-generative method*

- ★ 1) Through experiments: the example of depth perception (A. Lutz)
- ★ 2) Through experiential fields : affect and imagination (F.J. Varela & N. Depraz), the emotions and the heart-system (N. Depraz)





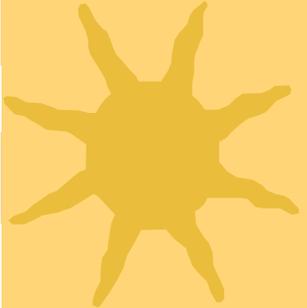
The example of depth perception (A. Lutz)



- ★ Specificity of the experiment: a double *training* a. *ability* to perform the task: the arising of the 3D percept; b. *cultivation* of the gesture of reduction as a method to gain new descriptive insights
- ★ The co-generative method at work: the degree of training of the subjects is categorized in « phenomenological clusters » (3): a. SR, b. FR, c. UR (2002, 2003)
- ★ Concl. The generativity of first person accounts is increased by the training subject; the graduality of subjective experience is able to refine third person neural dynamics



New experiential fields : affect and imagination (F.J. Varela & N. Depraz)



- ★ Valence: affect originally shapes time. (Hypothesis: emotions are not mere colorations of the cognitive agent as a formal and un-affected self but are immanent and inextricable from every mental act.)
- ★ Imagining: imagination is not a supplement to the motorsensory perception but belongs to the core of the cognitive life. (Strategy: imagination shows the inextricably non-dual nature of the brain basis of mental events and their experiential quality.)



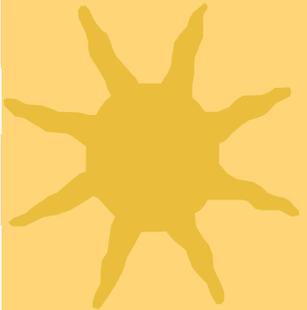
« *The rainbow of emotions* »

(in press: B. Heiner ed. PCR, 2007: Spec. Issue « Intersubjectivity and affectivity. Phenomenology and cognitive sciences »)

Working hypothesis: in order to recast the explanatory gap we approach the mind-body and *Leib/Körper* problems with a heart-centered model instead of a brain-centered one.

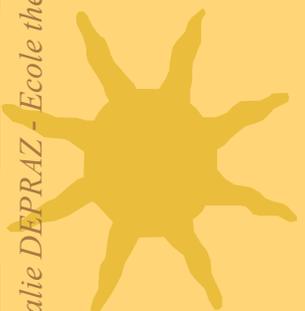
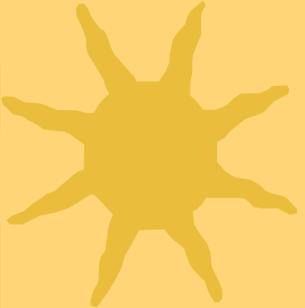
Leading question: *how* the physiological dynamics of the rhythmicity of the heart and breath can become constitutive of a subjective (*qua* intersubjective) point of view ?

General contention: the heart as a reformed cognitive agency and its phenomenal arising as a rainbow of emotions gives a more encompassing account of the seamless, non-dual articulation between the organic and the experiential.





Fourth part: Phenomenology as transcendental empirism

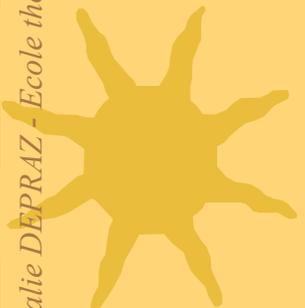
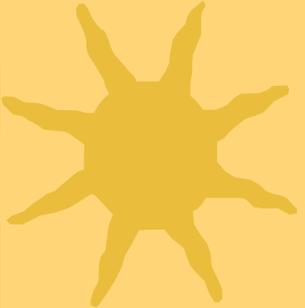


- ★ Philosophical counterpart of neurophenomenology (N. Depraz, « De l'empirisme transcendantal: entre Husserl et Derrida, *Alter*, 2000)
- ★ Ontological formulation of the method of « mutual generative constraints (N. Depraz, *Lucidité du corps. De l'empirisme transcendantal en phénoménologie*, Kluwer, 2001)



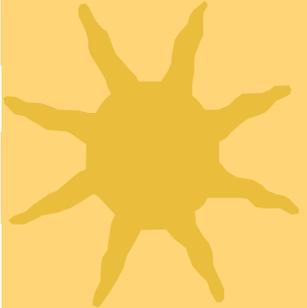
Generative passages between empirical and transcendental

- ★ Core-hypothesis: use the renamed enactive method within the neurophenomenological paradigm in order to account for the « seamless, non-dual articulation » of empiricity and transcendentality inherent in phenomenology both as method and as ontology





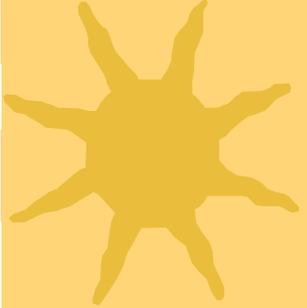
A non-dual metaphysics beneath the bifurcation between idealism and realism



- ★ « 'Passages génératifs' entre l'empirique et le transcendantal. Mettre la méthode phénoménologique au travail dans des protocoles d'expérience » in: *Les Cahiers Henry Ey* (2006)
« Conscience... de la phénoménologie à la neurophilosophie »
- ★ Working hypothesis: immanent understanding of phenomenological philosophy as a non-axiological generative circulation between empiricity and transcendentality.



*At the core of transcendental
empiricism:
the lucidity of the body*



- ★ Leading theme: « the lucid lived body » as exemplarily illustrative of the bodily *know-how*, which is not « opaque » or « blind » (so Merleau-Ponty), but highly « enlightening » (lucidity: from *lux* in Latin: light)
- ★ A seamless ontology of the organic and the experiential led by the luminosity of the body, not only by its transparency (so Metzinger)



Fifth part: Phenomenology as praxis : a renewal thanks to enaction

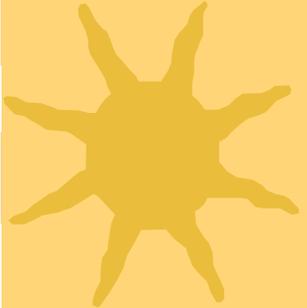
★ Introduction: The uses of enaction

Enaction revisited through

a. On becoming aware (as practice)

b. Neurophenomenology (as co-generativity)

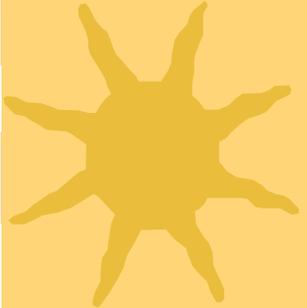
is twofold:





Enaction: practice or co-generativity?

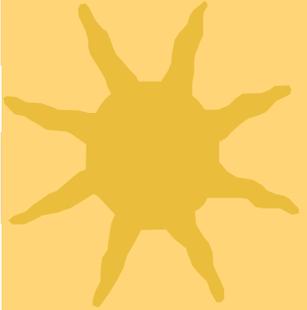
- ★ — According to NPh and as CG it is both methodological and ontological: it frames and uncover phenomenology as « transcendental empiricism ».
- ★ — According to OBA and as Pr it is experiential and descriptive: it paves the way for a reform of phenomenology as praxis.





Phenomenology: a concrete practice

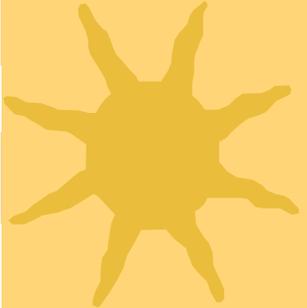
- ★ **N. Depraz, *Comprendre la phénoménologie : une pratique concrète* (A. Colin, 2006)**
- ★ **An experiential and descriptive renewal of phenomenology (what it always claimed; what it never was de facto)**
- ★ **What does it mean to « practice phenomenology »?**





Historical steps of a pragmatic phenomenology

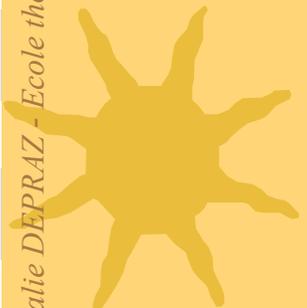
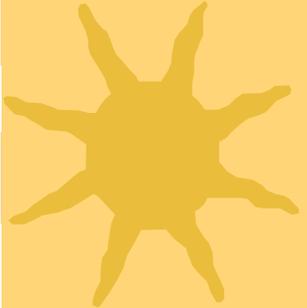
- ★ Doing Phenomenology
(H. Spiegelberg) 1975
- ★ Experimental phenomenology
(Don Ihde) 1977
- ★ Transformative Phenomenology
(B. Waldenfels) 1993-2002
- ★ Imaginizing, remembering, placing, glancing
(E. Casey) 1976-2006





Three facets of the practice of phenomenology

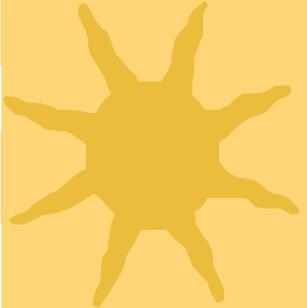
- ★ 1. The original method of phenomenology: reduction
- ★ 2. The specific account of experience: description
- ★ 3. The constitution of phenomenology through positive sciences (mathematics and psychology)





The three poles of the phenomenological praxis

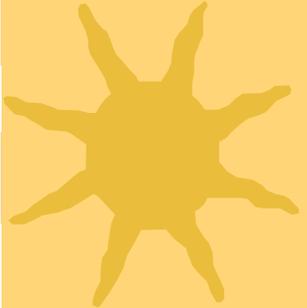
1. Reduction: a disciplined exploration of the self as a subject cultivating an unceasing attention toward herself
2. Description: an approach of language ruled by a care for openness to all phenomenal possibilities and for prevention from axiological judgement, the text being an opportunity for experiencing and not a goal
3. Self-foundation through other disciplines (psychiatry, sociology, theology, neuroscience)





The three « persons » of the phenomenological practice

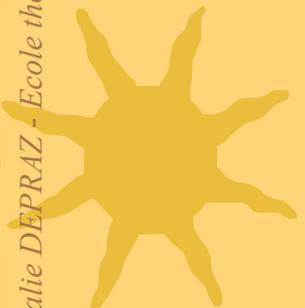
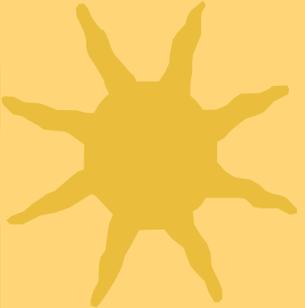
- ★ 1. Reduction: method of exploration and cultivation of first person lived experiences
- ★ 2. Description: disciplined shared (intra-variability and inter-variability) second person accounts
- ★ 3. Scientificity: cross-disciplinary social and historical third person exchanges





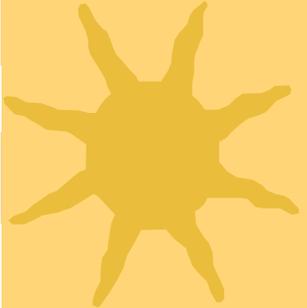
Forms of phenomenological practices

- ★ 1. Self-observation and individual exercise
- ★ 2. Intersubjective comparison and verification
- ★ 3. Collective sedimentation and reactivation





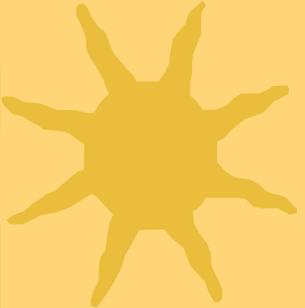
Sixth part: A case study. Attention at the core of phenomenology as praxis



- ★ *Leading thread:* how can the motto of enaction be put to work in a coherent way?
- ★ By offering co-productions which are mutual (phenomenological and empirical) creative gestures.
- ★ *Conclusion:* enaction is not only a critical theme (sensorimotricity as an alternative to representation); it is a method in its own right: a generative pragmatics.



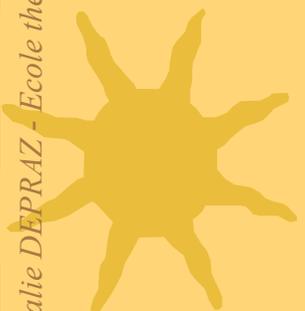
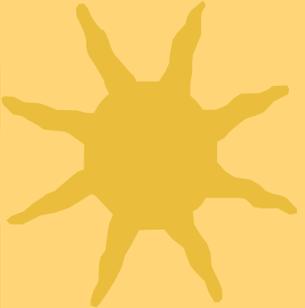
Reductionist qua non-phenomenological meanings of enaction



- ★ Reduction of enaction to sensorimotoricity vs. the body as a whole configuration of being (including time, imagination, emotions)
- ★ Mechanical application of enaction to experimental protocols vs. generativity of newness (exploratory data and innovating categories)



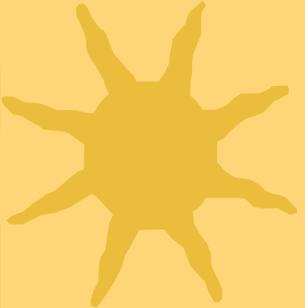
A case study: attention



- ★ A. Steinbock & N. Depraz, *The Phenomenon of Attention between Theory and Practice* in: *Continental Philosophy Review* (2004)
 - ★ B. Waldenfels, *Phänomenologie der Aufmerksamkeit* (2004)
 - ★ Why attention?
 - 1) It is required for every activity of a subject towards an object (as a modulator)
 - 2) It may be cultivated and developed (as a training)
 - 3) It is strongly linked to affectivity and to the social intersubjective context (thus bridging perception and ethics)
- It results a good candidate for testing our hypothesis about the relevance of the phenomenology as praxis



From attention to attention: a creative experiential and categorial process



- I. Attention is not a mere mental act: it is bodily anchored as a starting, orienting and focalizing gesture (Meinen)
- II. Inattentional blindness and implicit learning are preconscious processes which make attention possible (Passive Synthesis)
- III. Divided attention questions/increases the attentional ability (Ichspaltung)
- IV. Joint attention creates an articulation between intersubjectivity and objectivity (Gemeinschaft)
- (N. Depraz, *La vigilance au cœur de la conscience. Phénoménologie de l'attention*, to appear)



Conclusion

1. Enaction as « co-generativity » in the light of phenomenological *Generativität*.

2. Phenomenology as « praxis » in the light of enactive cognition.

Neither 1. nor 2. is taken for granted: such a mutual transformation is a strong hypothesis founded on the challenge of an experiential exploration of novelty

