

Evolution as Connecting First-Person and Third-Person Perspectives of Consciousness

ASSC 12 poster, Taiwan, June 2008 [Christophe Menant](#) Bordeaux, France (1/9)

Abstract

First-person and third-person perspectives are different items of human consciousness.

Feeling the taste of a fruit or being consciously part of a group eating fruits call for different perspectives of consciousness. The latter is about objective reality (third-person data). The former is about subjective experience (first-person data) and cannot be described entirely by objective reality.

We propose to look at how these two perspectives could be rooted in an evolutionary origin of human consciousness, and somehow be connected.

Our starting point is a scenario describing how evolution could have transformed a non self-conscious auto-representation into a conscious self-representation (Menant 2006). The scenario is based on the performance of inter-subjectivity existing among non human primates (Gardenfors 2006). A key item of the scenario is the identification of the auto-representation of a subject with the representations that the subject has of her conspecifics, the latter feeding the former with the meaning: "existing in the environment".

So during evolution, pre-human primates were brought to perceive their auto-representation as existing in the environment. Such process could have generated the initial elements of a conscious self-representation.

We take this scenario as providing a possible rooting of human consciousness in evolution.

We develop here a part of this scenario by expliciting the inward and outward components of the non self-conscious auto-representation.

Inward components are about proprioception and interoception (thirst, pain, ...). Outward components cover the sensory information relative to the perception of the body (seen feet, ...) and of its effects on the environment.

We consider that the initial elements of a conscious self-representation have been applied to both inward and outward components of the auto-representation. We propose that the application to inward components made possible some first-person information, and that the application to outward components brought up third-person information. Relations between the two perspectives are highlighted.

Such approach can root first-person and third-person perspectives in the same slot of human evolution.

We conclude by a summary of the above and introduce a possible application of this approach to the concepts of bodily self and of pre-reflexive self-consciousness (Legrand, 2006).

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I) Presentation

- * This is a continuation of TSC2006/ASSC10 posters about evolution of representations toward self-consciousness (II, Fig 1):
 - Starting point is with pre-human primates capable of inter-subjectivity allowing some identification with their conspecifics (Gardenfors 2006).
 - Identification with conspecifics brings the non self-conscious auto-representation to access the meaning “existing in the environment”.
 - Brings up first elements of conscious self-representation that evolution will transform into self-consciousness.
 - Identification is also with suffering or endangered conspecifics, which significantly increases anxiety.
 - Anxiety limitation goes with the development of empathy, imitation, language, inter-subjectivity, group life, emotions, feelings.
 - Such developments create a positive feedback loop in the evolutionary process. Is an evolutionary engine.
- * We explicit here the application of the “existing in the environment” characteristic on two components of the non self-conscious auto-representation (III, Fig 2):
 - Outward auto-representation (sensed parts of body, and effects/behaviours on the environment).
 - Inward auto-representation (proprioception, interoception,..)
- * Such applications lead to proposals for evolutionary build ups of third-person and first-person data of consciousness (III, Fig 3):
 - Application to outward auto-representation introduces conscious behaviour with self-consciousness, and pre-reflexive self-consciousness (considered here as a subset of the evolution of conscious self-representation toward self-consciousness). Is the build up of third person data of consciousness.
 - Application to inward auto-representation introduces first person data of consciousness, with phenomenal consciousness.
 - Proposed common origin for third and first person data of consciousness links them by an evolutionary story of conscious self-representation.

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II) Evolution of representations toward self-consciousness (Fig 1)

(Summary of TSC2006 and ASSC10 posters. C. Menant 2006, a & b)

a) Pre-human primates and inter-subjectivity. Evolution toward a conscious self-representation.

- * Self-consciousness is a mysterious results of evolution.
- * Proposal is to consider self-consciousness as a results of an evolution of representations.
- * Primates carry representations of conspecifics and carry an auto-representation (without components of self-consciousness).
- * Pre-human primates can identify with their conspecifics (inter-subjectivity, mirror neurons) and can merge their auto-representations with the representations they have of their conspecifics. The former gets access to a meaning of the latter, namely « element existing in the environment ».
- * Auto-representation then becomes an « element existing in the environment » which introduces the first element of conscious self-representations in evolution.
- * Evolutionary advantages bring conscious self-representation to self-consciousness.
- * Human evolution is not completed

b) Anxiety limitation. Evolutionary engine toward self-consciousness.

- * Pre-human times were full of dangers with survival of the fittest as a law. Identification with conspecifics also brought identification with suffering or endangered conspecifics. Induced important increase of anxiety.
- * Anxiety limitation implemented by development of performances like: Empathy, imitation, language, inter-subjectivity, group life, emotion and feelings.
- * Development of such performances also created a positive feedback loop on the overall evolutionary process. Creation of an evolutionary engine.

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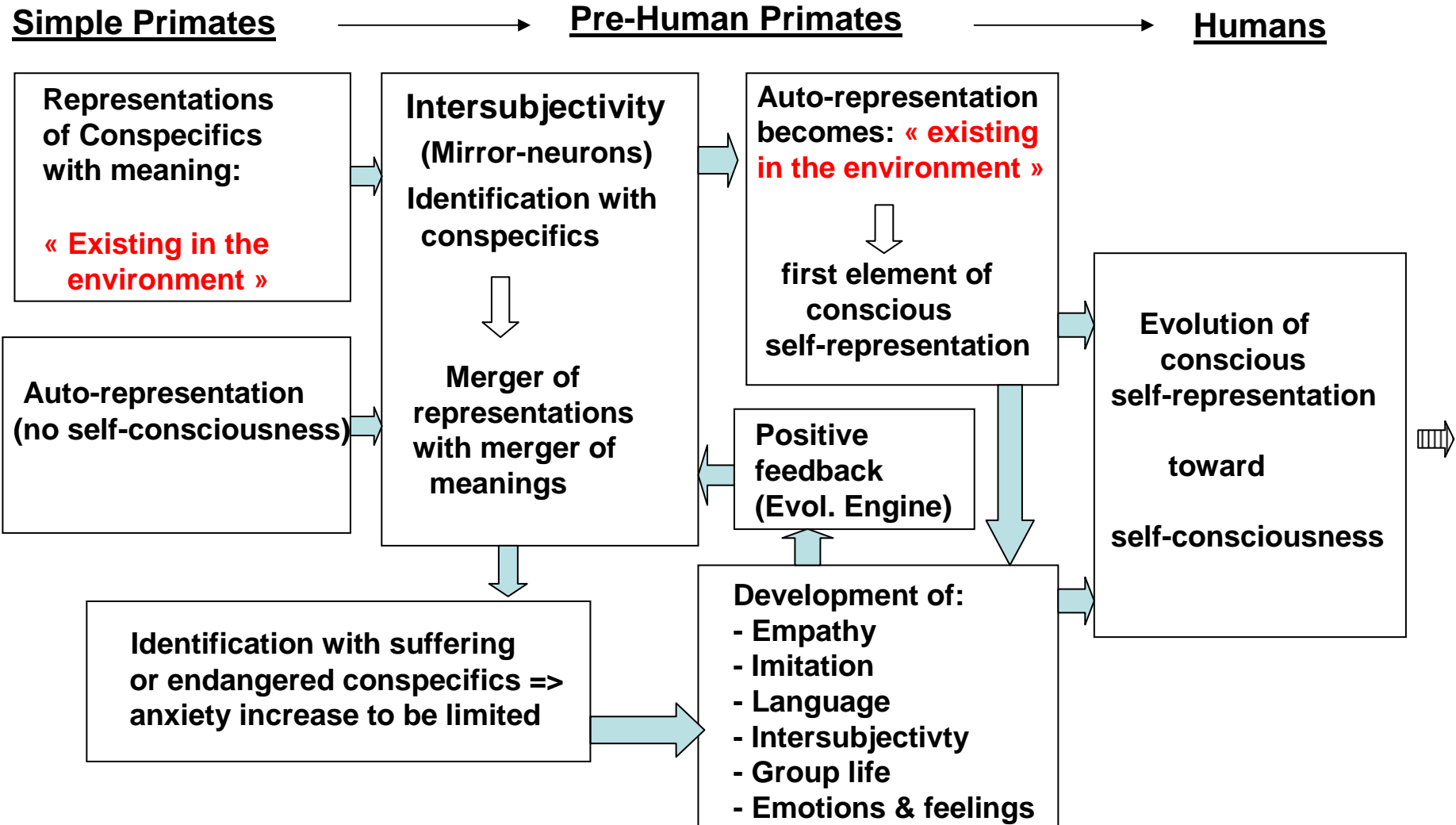


Fig 1) Evolution of representations toward self-consciousness

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III) The components of auto-representation and their evolutions (Fig 2 & 3)

a) Outward and inward components of auto-representation (Fig 2)

* Auto-representation:

- No self-conscious component, but outward and inward components.

* Outward components (as perceivable by outside entities, like conspecifics):

- Sensed parts of body (seen feet, ...)

- Objective effects on the environment (actions, behaviours)

* Inward components (as non perceivable by outside entities, only perceivable by subject):

- Proprioception, interoception, nociception, thermoception,...

b) Evolution of outward auto-representation into third person data of consciousness (Fig 3)

* Sensed parts of the body (with related actions/behaviours) becoming “existing in the environment” for the subject bring up self-consciousness as a third person perspective (behaviour of conscious system).

* We propose to consider pre-reflexive self-consciousness as an unachieved and non explicit version of self-consciousness, as a by-product of the evolution of auto-representation toward self-consciousness and available for phenomenal consciousness. Pre-reflexive self-consciousness as part of a third person perspective of consciousness.

c) Evolution of inward auto-representation into first person data of consciousness (Fig 3)

* Inward components of auto-representation becoming “existing in the environment” bring up a background of “consciously belonging to the subject”.

* Pre-reflexive self-consciousness participates to the interpretation of sensations and of emotions.

* Build up of the first person perspective of consciousness, supporting phenomenal consciousness.

d) Human consciousness and evolutionary link between first person and third person data.

* Human consciousness as made of: self consciousness, pre-reflexive self-consciousness, phenomenal consciousness.

* Evolutionary link between first and third person data, based on evolution of conscious self-representation.

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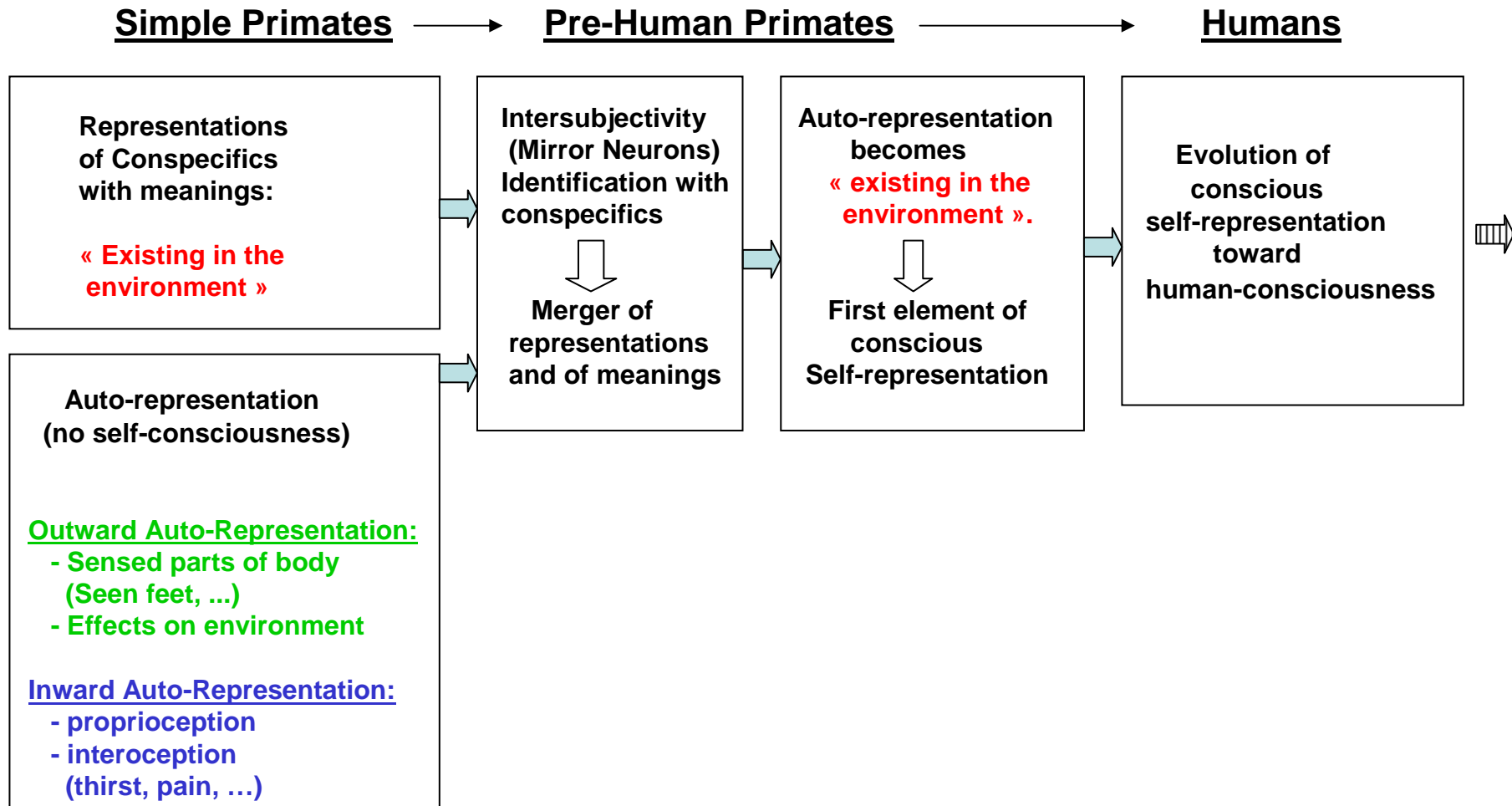


Fig 2) The components of auto-representation

(Evolutionary engine not drawn for place saving)

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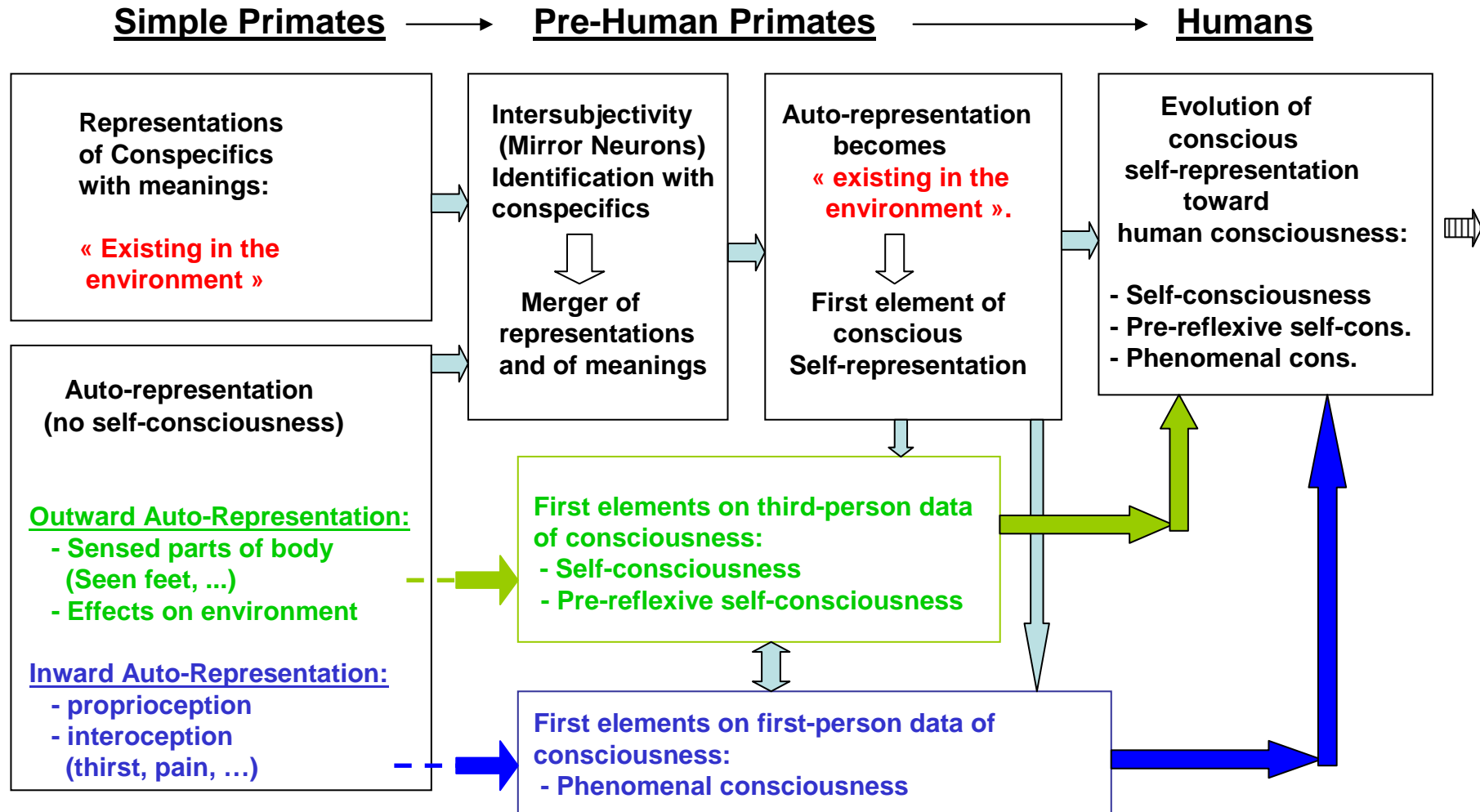


Fig 3) The components of auto-representation and their evolutions

(Evolutionary engine not represented for place saving)

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IV) Conclusion

a) Summary

- * In addition to TSC2006 and ASSC10 posters, an evolutionary approach to human consciousness is proposed. It is based on the evolution of a non self-conscious auto-representation into a conscious self-representation. It addresses the following components of human consciousness:
 - Self-consciousness
 - Pre-reflexive self-consciousness
 - Phenomenal consciousness.
- * Scenario uses the evolution of outward and inward components of auto-representations to introduce:
 - Self-consciousness and pre-reflexive self-consciousness as third person data of consciousness.
 - Phenomenal-consciousness as first person data of consciousness.
 - Evolution of conscious self-representation as a common origin to third person and first person types of consciousness.

b) Continuation

- * Compare the proposed third person type of pre-reflexive self-consciousness to the existing first person type.
- * Detail the content of the first elements of a conscious self-representation and develop the proposed evolutionary link between first person and third person data of consciousness.
- * Analyze the rooting of the proposed evolutionary scenario in life performances and in bodily self.

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