

* Toward a science of consciousness 2004 **

"Performances of Self-Awareness used to explain the Evolutionary Advantages of Consciousness " [Christophe Menant](#) (crmenant[at]free.fr)-

Short Abstract:

Evidencing an evolutionary explanation to consciousness has so far proven to be very difficult. We consider here an earlier stage in evolution (self-awareness) and introduce evolutionary advantages attached to this stage that appeared millions of years before consciousness during evolution. At level of self-awareness, we show that group life with identification to suffering conspecific produces anxiety, and that anxiety limitation induces development of self-awareness, group life and emotions, with empathy, imitation and language as evolutionary advantages. We consider that resulting acceleration of self awareness development led to self-consciousness. More work is to be done, and consequences of the proposed model are introduced: Consciousness and anxiety within great apes and dolphins, autism as resulting of problems with anxiety limitation, anxiety limitation as a base for a phylogenesis of emotions. Completion of model is also introduced with question about coverage of phenomenal-consciousness and access-consciousness.

Evolution of Self-Awareness Toward Anxiety and Consciousness

Starting point in evolution: Self-Awareness. (Non-human primates, mirror neurons, group life, identification to conspecific).

Process: Identification to sufferings of conspecifics produces anxiety within subject. Anxiety limitation induces development of self-awareness, group life and emotions, with empathy, imitation and language as evolutionary advantages.

Evolution Trend: Acceleration of development of these performances due to positive feedback on self-awareness. Self-consciousness as a by-product of self-awareness evolution.

Summary in **Fig 1**. Details in **Fig 2**.

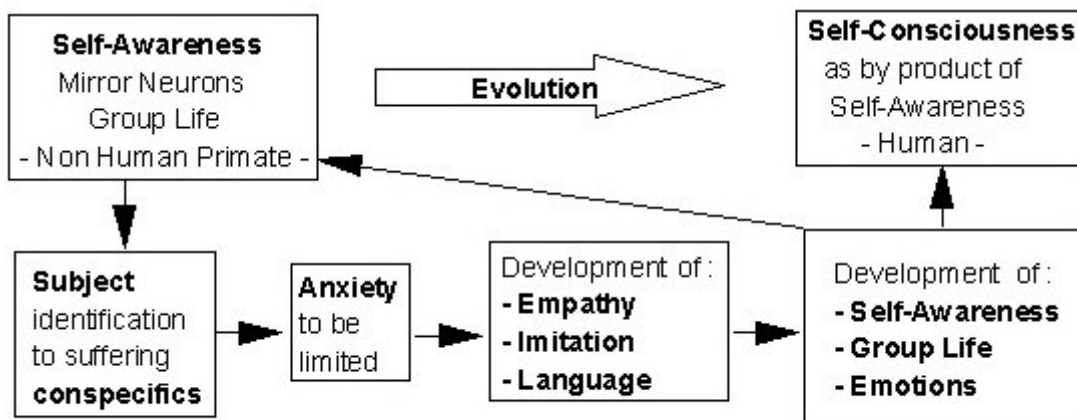


Fig. 1

Conclusion and continuation:

Evolutionary advantages of Self-Awareness have been highlighted. Self-Consciousness can then be looked at as a by-product of Self-Awareness evolution. Process steps and consequences are to be analysed in more detail. See Fig 2.

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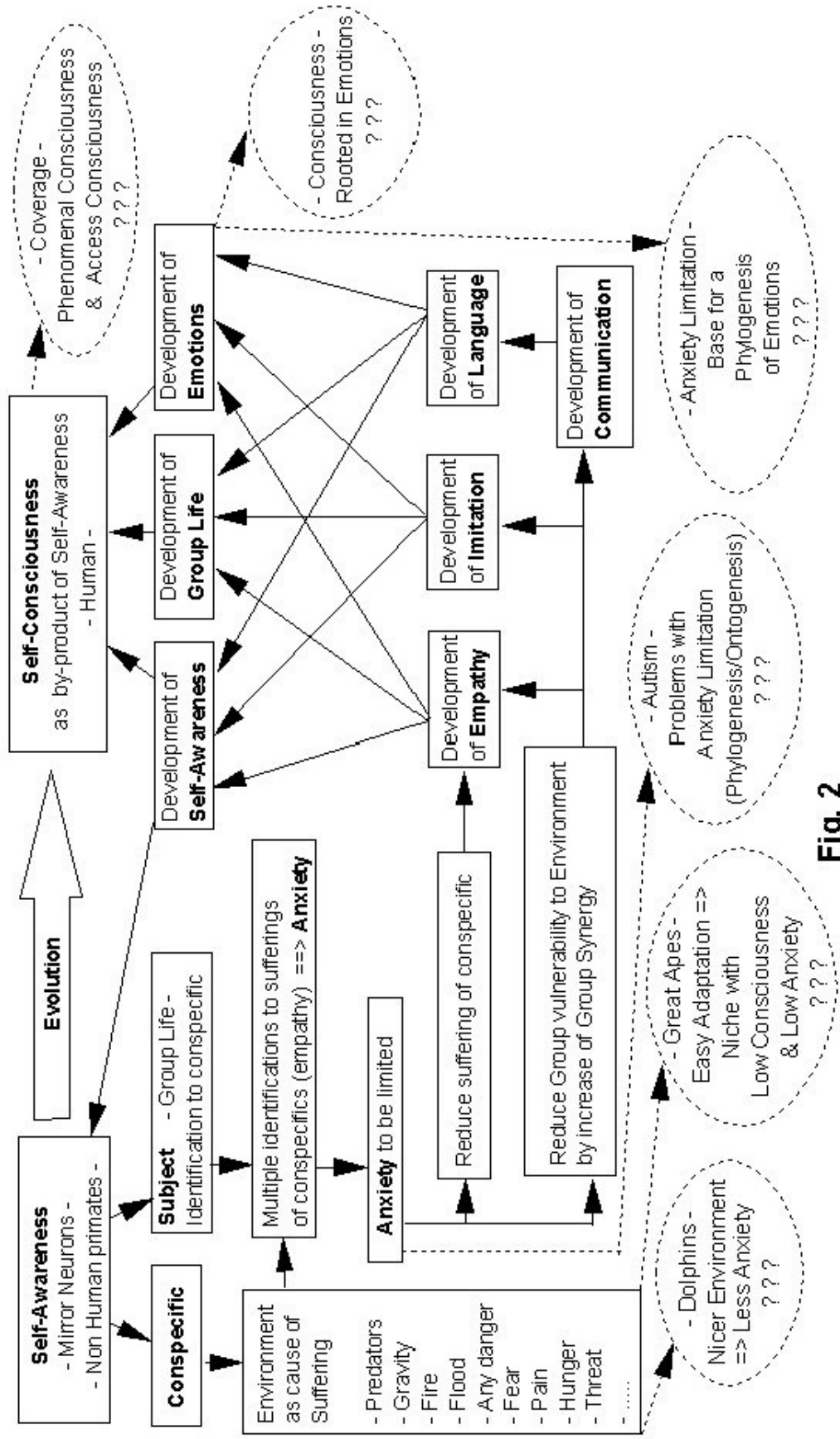


Fig. 2