Abstract

The nature of human mind is a key subject for philosophy and for psychology. It is agreed that many of its characteristics and performances have been built during the last 7 million years of our primate evolution. That period began with what is called the pan-homo split, the divergence in primate evolution from the Last Common Ancestor (LCAncestor) we share with chimpanzees. The mental specificities that differentiate us from our chimpanzee cousins have been built up during that time. As consequence, philosophical and psychological investigations relative to the nature of human mind should analyze that period. But this has been done only in a limited way so far. On part because the recent discipline of Evolutionary Psychology covers only a limited segment of that period and also because Husserl, the founding father of Phenomenology, took the position to not address a possible evolutionary nature of human mind (the “proscription of anthropology in Phenomenology”) [1]. We would like here to recall these limitations and introduce possible openings (this is a continuation of an already presented approach [18] [4]). Evolutionary Psychology is interested in the life and social habits of our hunter-gatherer ancestors in order to highlight mental states that were pertinent for them but do not fit with our today lives. The pre-human period considered by Evolutionary Psychology is the Pleistocene which began 2.5 million years ago. At about that time our homo-habilis ancestors were already significantly more evolved and more performant than the LCAncestor we share with chimpanzees (larger brain size, fabrication of stone tools, hands capable of precision grip, …). This means that at the beginning of the Pleistocene our ancestors were already well advanced in their evolution toward today humans. This shows that the build up of our human characteristics and specificities began before the Pleistocene, and neglecting the pre-Pleistocene time puts at risk of missing some root causes of our human specificities. This brings to consider that Evolutionary Psychology should take into account the pre-human period beginning at the pan-homo split, not only the Pleistocene. Regarding philosophy, the proscription of anthropology in Phenomenology is currently challenged with some interest in Evolutionary Psychology [9] [8]. To avoid the risk of limiting human evolution to Pleistocene Phenomenology should explicitly plan to use anthropology on the whole evolutionary period beginning at pan-homo split.

In such a perspective some help could come from an existing evolutionary scenario starting at pan-homo split and introducing a nature of self-consciousness associated to anxiety management [4]. The scenario introduces an Evolutionary Engine based on primate intersubjectivity which could have led our ancestors to build a representation of their own entity, thus leading to a natural build up of self-consciousness. Part of the scenario is also about identifications with suffering conspecifics which may have been the source of a huge anxiety, not taken into account so far and leading to an Evolutionary Anxiety intertwined with the nature of self-consciousness. It is shown that a synergy between the evolution of self-consciousness and anxiety management happened before Pleistocene, making pre-Pleistocene a key period for understanding the nature of our human minds.

Overall, the scenario proposes a rationale for the pan-homo split, a tentative explanation of the divergence in pre-human primate evolution. It is also recalled that the concept of Evolutionary Anxiety makes available an entry point to the nature of human evil [14].

We present the above points and use the proposed evolutionary scenario for a reading of human evolution from last common ancestor to today humans. Continuations are introduced.

key words:
Evolution, Pan-homo split, Pleistocene, Primatology, Anthropology, Intersubjectivity, Self-consciousness, Anxiety, Evolutionary psychology, Phenomenology, Philosophy of mind.

* 7My ago:
- Pan-Homo Split (PHSplit): Divergence in primate evolution following Last Common Ancestor (LCAncestor) shared by humans and chimpanzees.
- PHSplit divergence led to chimpanzees and to humans.

* 2.5My ago:
- Beginning of Pleistocene (4.5 My after LCAncestor).
- Close to time of our homo-habilis ancestor considered as most ancient representative of human genus.
  (increased cranial capacity, mostly bipedal primate, invention of stone tools) [5].
- Our pre-human ancestors were already well advanced in their evolution toward humans before Pleistocene => chimpanzees/human lineages separation began before Pleistocene.
- Not considering the pre-Pleistocene period brings to neglect already acquired characteristics of human genus.

B) Evolutionary Psychology and Pleistocene

* Evolutionary Psychology (EvoPsy):
- Is interested in the life and social habits of our hunter-gatherer ancestors in order to highlight mental states that were pertinent for them but are not adapted to our today lives.
- Focuses on the evolution of pre-humans during the Pleistocene that began 2.5 My ago [17], and 4.5 My after our human lineage began separating from the one that led to chimpanzees (the pan-homo split).
- Does not take into account the first 4.5My of evolution that led from LCAncestor to homo-habilis.
- Does not analyze the PHSplit for its possible reasons of occurrence.
- Offers a limited evolutionary analysis of human nature.
* Other authors have argued that EvoPsy should cover an even wider period of time [2], [3].

C) Philosophy and “Proscription of Anthropology”

* Founding fathers of Analytic Philosophy and of Phenomenology have excluded any theory of evolution:
  «Biological considerations as such, and evolutionary ones in particular, were judged irrelevant to genuine philosophy» [6].
* Husserl has rejected evolution from Phenomenology. Such position has been highlighted by Blumenberg as “Proscription of Anthropology in Phenomenology” [1].
* Philosophical works are currently in process for Phenomenology to take anthropology into account [7].
  EvoPsy is discussed [9] [8], but without explicitly addressing concerns related to the focus on Pleistocene [16]. Phenomenology may consequently be at risk of neglecting some root causes of human specificities. That risk can be avoided by considering the whole evolutionary period beginning at pan-homo split.

D) Human Evolution for Psychology and for Philosophy

* EvoPsy, and potentially Phenomenology, do not consider human evolution before Pleistocene => neglect build up of pre-Pleistocene human characteristics.
  Leads to incomplete and limited evolutionary analysis of human nature.
* EvoPsy & Phenomenology should consider human evolution from LCAncestor to today humans.
  - Would allow a more complete evolutionary approach to the nature of human mind.
* An evolutionary scenario from LCAncestor to today humans is to be considered.
E) Overall Evolutionary Scenario from LCAncestor to Humans \[10\] \[18\]

* Based on pre-Human primate identifications with conspecifics and on anxiety management.
* Introduces Self-Consciousness and Ancestral Anxiety as natural outcomes of primate evolution.
* Presents PHSplit as a result of anxiety management by pre-Human primates.

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**Development of identification with conspecifics after LCAncestor:**

- \(\Rightarrow\) Self-Consciousness as natural evolutionary performance.

**Identifications with suffering or endangered conspecifics:**

- \(\Rightarrow\) “Evolutionary Anxiety”, as a huge mental suffering that had to be limited.

**Leads to an evolutionary scenario starting at LCAncestor and leading to Humans and to Chimpanzees:**

- Development of Anxiety Limitation tools that also brought evolutionary benefits by positive feedback \(\Rightarrow\) “Evolutionary Engine” \(\Rightarrow\) acceleration of evolution toward HUMANS.
- Reduction of Evolutionary Anxiety by ending development of identifications with conspecifics \(\Rightarrow\) end of evolution toward self-consciousness \(\Rightarrow\) niche build up: CHIMPANZEES.
- PHSplit as a consequence of different anxiety management processes in primate lineage.

**Evolutionary scenario guided by Anxiety Management was active before Pleistocene:**

- At beginning of Pleistocene Homo-Habilis was already more evolved than chimpanzees (bigger brain, stone tools, ..).
- \(\Rightarrow\) Chimpanzees/Human lineages separation began before Pleistocene, using Anxiety Management.
- Evolutionary Anxiety management that shaped the nature of Human mind was active before Pleistocene.

**Using the proposed evolutionary scenario as an hypothesis for Human evolution means that:**

- Self-Consciousness and Evolutionary Anxiety management came up in synergy before Pleistocene in primate evolution.
- Not considering the pre-Pleistocene period brings to neglect a pre-Human Evolutionary Anxiety that has guided the evolution of Human minds \(\Rightarrow\) incomplete analysis and limited understanding of Human nature.
- Ancestral Anxiety limitation constraint is to be considered as a specific and active part of Human nature, present at genetic level and not taken into account so far. Is source of multiple anxiety related meaning generations currently active on many of our thoughts and actions, mostly unconsciously \[10\] \[13\]. Work is needed to investigate these Human specificites.
- Self-Consciousness is a result of an on-going evolutionary process with a still active Evolutionary Engine \[11\] \[12\].
- Human evil behavior may be partly due to a targeted mode of Anxiety limitation sourced in pre-Human primate evolution (targeted de-identification leading to de-humanization) \[14\].
- Human evolution is not finished. A better understanding of its build up since our LCAncestor could make available threads for its possible future.
F) Conclusion
* EvoPsy does not consider human evolution before Pleistocene and by this neglects an evolutionary sourced Ancestral Anxiety which is a so far neglected key component of our human nature.
* Similar concern may come up in Phenomenology referring to EvoPsy.
* These backgrounds on our evolutionary nature are to be updated by taking into account the pre-Pleistocene period where the performances of homo-habilis was built up.
* An evolutionary scenario covering the period from our Last Common Ancestor to Humans allows such updates:
  - Development of identification with conspecifics => Self-Consciousness and Evolutionary Anxiety => Nature of self-consciousness existing in synergy with an Ancestral Anxiety management.
  - Positive feedback through anxiety limitation => Evolutionary Engine => Human lineage from evolutionary synergy.
  - Unbearable suffering from Evolutionary Anxiety => rejection of Evolutionary Engine => Chimpanzee lineage.
  - Homo-habilis more developed than chimpanzees (brain size, development of stone tools, …) => lineages separation due to anxiety management began before Pleistocene.
* Pre-Pleistocene period has to be explicitly taken into account as source of human specific Ancestral Anxiety:
  - Ancestral Anxiety limitation, as a genetic human constraint, conditions many of human thoughts and actions.
  - Human evolution is still on going. Ancestral Anxiety management contributes to the still active Evolutionary Engine.
* PHSplit can be considered as resulting from different modes of anxiety management during our pre-human evolution.

G) Continuations
* Clarify the evolutionary process leading from intersubjectivity to identification with conspecifics.
* Develop the contents of Evolutionary Anxiety and of Ancestral Anxiety. Relate them to homo-habilis performances and highlight them as human specificities.
* EvoPsy and Phenomenology to consider human evolution beginning at Last Common Ancestor in order to take into account the pre-Pleistocene time.
* Anxiety limitation processes to be positioned as key source of human motivations. Evolutionary sourced anxiety limitation processes to be analyzed with related meaning generations [12, 13].
* Analyze anxiety limitation in pre-human primate evolution as entry point to human evil behavior [14].
* Explore modes of human suffering possibly consequences of various human anxiety limitation processes.
* Address evolutionary based Self-Consciousness and Reflectivity as entry point to Phenomenal Consciousness [15].
* Look at how Analytic Philosophy could use the proposed evolutionary approach.
* Look at how human neotony can be related to a human specific need of Ancestral Anxiety limitation since birth.

References