

## Chapter 2

# The Semi-Aquatic Theory: Semi-Aquatic Evolutionary Phase and Environment, Language Development of Modern Humans. With a Short Epilog on Conceptualized Evolution, Social Ecology and the Quintuple Helix

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### ABSTRACT

*This article presents the semi-aquatic theory motivated to provide an explanation for why or how did language of the modern humans develop? Key propositions of this theory are early hominids went through a semi-aquatic evolutionary phase and that this semi-aquatic environment exposed the early hominids to frequent visual reflections of their own image, thus transforming a “potential sense of self” to an “active sense of self”, which supported the language development of early hominids. In the epilog of this article, the semi-aquatic theory is being framed and assessed in context of a broader discussion that receives analytical input from “Conceptualized Evolution” and social ecology. Conceptualized Evolution distinguishes between “possible worlds of evolution” and “real worlds of evolution”. However, Conceptualized Evolution stresses that based on “theoretical” (theoretically designed) examples of evolution, even if they never existed empirically, much could be learned for an understanding of our real world. The semi-aquatic theory qualifies at least as a conceptually possible scenario of evolution.*

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## INTRODUCTION: THE SEMI-AQUATIC THEORY DISCUSSED IN BROADER CONTEXT

This article is structured in two main sections. In section two, the so-called “semi-aquatic theory” is being presented. *Why or how did language of the modern humans develop?* This defines and sets the central research question. The portrayed theory focuses on providing a reasoning for the language development of humans during an earlier period of hominid evolution. Propositions of that theory suggest that our hominid ancestors went through the environmental niche of a semi-aquatic phase. This semi-aquatic phase was key for promoting an “active sense of self”, again necessary for advancing language development. The semi-aquatic theory claims having an explanatory power for how language development occurred and why particularly this (postulated) semi-aquatic phase was so important.

Section three (the epilog) puts the semi-aquatic theory in a broader context by introducing the “Conceptualized Evolution” that distinguishes between “possible worlds of evolution” and “real worlds of evolution”. Conceptualized Evolution postulates that examples of a conceptually possible evolution, which exist (existed) only in theory and never in practice, can be valuable for our learning about the empirically real world. Referring to Conceptualized Evolution as analytical point of departure, the discussion then focuses on what could be derived from the semi-aquatic theory conceptually, even if there never was such a semi-aquatic phase in hominid evolution. The discussion also considers whether or not the semi-aquatic theory reflects on features of “social ecology” (society-nature interactions) and therefore could be used (or not be used) as an example for social ecology. Further theory-building may focus on designing analytically linkages between evolution, social ecology and knowledge. Here an epistemological broadening of the so-called “Quintuple Helix” could be attempted in analytical terms.

The authorship of this article is specific. Section two was written completely by George Campbell, while the short epilog was added by David Campbell.

- **The Semi-Aquatic Theory:** Semi-aquatic evolutionary phase and environment, language development of modern humans (by George S. Campbell) Bipedalism, large brains, language, and a semi-aquatic phase of evolution.

There have been many theories speculating about the origin of man, what specific evolutionary niche or set of environmental factors caused us to separate from the rest of the apes and evolve into the humans we are. Indeed since the beginning of history, humans have considered themselves distinct from animals. Some of the major religions consider that only humans and not animals have souls, that man was created to dominate the animals.

All of the current familiar theories concerning the origin of man, although plausible, are unsatisfactory because they provide a sufficient but not necessary condition for our unique evolution. In this article we will present a controversial theory that conclusively explains (so the proposition):

- Why we but not the apes are bipedal.
- Why we have the largest brains.
- Why we but not the apes have language.
- Why we but not the animals have a complex social structure.

Before we do we would like to review the current theories and explain some of their weaknesses.

- **Bipedalism:** At the beginning of the twentieth century the prevailing opinion was that our brains grew large first and then we began walking on two feet to free our hands for using tools. But fossil evidence has conclusively proven that our hominid

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