

Magoun, Darling & Post. 1960. - the evolution of man's brain.

"Earlier concepts of the evolution of man, in which growth of the brain was considered to be <sup>the</sup> primary and determining event, have now given way to the view that man's large brain is the culmination of a series of changes which actually began caudally and only reached the cranium through successive alterations in intervening parts of the body"

Morgan, Darwin and Post. 1960

p. 43 " Obviously the phylogenetic development of the sensory and motor regions of the cortex and, in the dominant hemisphere, of the areas for speech and language, have been of major significance in the evolution of modern man. Knowledge of the stages of their development would be of greatest possible interest for anthropology "

Hay muchos especulaciones sobre el desarrollo de la capacidad de hablar del hombre, y una de las más comunes es que derivó de "abilities for emotional vocalization present in lower animals." Pero los estudios en este sentido que la vocalización emocional reside en el middle brain stem, y datos de neurología clínica sugieren que en el hombre existe el mismo mecanismo emocional neocortical.

" No se conoce relación funcional entre el sistema mesencefálico profundo de la vocalización emocional y los topográficamente distantes áreas corticales que el habla simbólica ---- "

p. 44. Resulta que el lenguaje humano simbólico, hablado y escrito, representa un "entirely novel functional increment, related to the acquisition of association cortex."

Magoun, Darling y Post 1960.

p. 45. Estratos de desarrollo del cerebro humano.

Edad.	Peso del cerebro	Equivalente
1 mes	460 gr.	= Antropoides adultos.
3 meses	550 gr	= African man-apes [Australopithecids]
11 mes	850 (empieza a hablar)	= Hombre de Java.
3 años	1.110 gr (habla bien)	= Hombre de Pekin.
10 años	1.410 gr.	= Hombre de Neanderthal.







The brain has gone through two major changes in size, quite independently of body size, by means of two consecutive doublings of the cortical area. (This means that two major ~~steps~~ steps in human evolution may have taken place since the ancestors of man became erect bipedal primates, feeding themselves with their hands. (Schultz, 1950, graph on p. 45. See also Bok, 1939; Bonin, 1937; 1938, 1950; Danilewsky, 1880; Dubois, 1898; Kraus, Davison and ~~Walt~~ Weil, 1928; Schepers, 1946; Stiles, 1946; Van dilla, Day and Siple, 1949).)

(C. Conn. 1953. An. Rep. Smithsonian Inst. 1953:280)

~~No~~ Se refiere a algo general en todo los primates, al menos, más en todo los monos modernos.



Anne ROE y George Gaylor SIMPSON

Behavior and Evolution - Yale University Press - 1958.

Cap. 19 - Evolution of Human Behavior. - Washburn y Avis: 424

p. 424 "If the extreme slowness of human development in the first year is related to the enormous postnatal increase in brain size, it is probable that the difference in rate of maturation of man and ape developed entirely after the use of tools."

"Man was certainly hunting at an even earlier time (even glacial times), so there must have been some 200,000 years during which men were living a hunting, tool-using, fire-making, complex life before man anatomically like ourselves appeared."

### Evolution du cerveau humain

La difference basique entre le cerveau animal et l'humain est le developement dans la region frontal d'une grande "area d'association" qui manque chez les animaux. Cette ~~xxx~~ area, situe dans le cortex,