

IMPLICATIONS OF CHANGING PELVIC BRIM FOR BRAIN SIZE AND HUMAN INTELLIGENCE

by

Nathaniel Weyl

In 1973, J. Lawrence Angel of the Smithsonian Institution delivered a paper before the Ninth International Congress of Anthropological and Ethnological Sciences, which attempted to trace changes in human stature, life-span, fertility, morbidity from malaria, and other physiological characteristics from approximately 30,000 B.C. to the present on the basis of available skeletal evidence (Angel 1975: 167-190). The implications of this paper were momentous. It did not receive anything like the attention it deserved from the scholarly world. In the present article, we shall be concerned with only one facet of Angel's work--changes in pelvic brim.



Angel uses the depth index (A-P/transverse diameter) of the pelvic brim. He observes that this is "extremely responsive to overall nutrition and child health." The effect of World War I was to lower the index by about four points for people who were young children in Great Britain in 1915-1918 (Nicholson 1945). The aspect of this index relevant to the present paper is the following:

The ancient to modern difference is at least 10 units and the Industrial Revolution to modern change is apparently greater still.... (P)elvic depth is the diameter, reduced if pelvic bone growth is hindered by poor nutrition in childhood.... (T)his in turn can decrease the effective size of the birth canal; extra large fetuses will be more likely to die from birth trauma and also to endanger their mothers if this A-P diameter drops below 10 cm (Angel 1975).