ABSTRACT

SEXUAL DIMPORHISM IN THE DEVELOPING HUMAN BRAIN:
EVIDENCE FROM LATERAL SKULL X-RAYS

James W. Prescott, Ph.D.
Institute of Humanistic Science

A basic normative study on the cranial-facial growth and development that utilized lateral skull x-ray technology was undertaken by the Krogman Growth Center, Children's Hospital, Philadelphia, PA during the 1970s by Solomon Katz, Ph.D. and Geoffrey F. Walker, Ph.D. This database was re-analyzed to test selected theoretical postulates of this investigators SSAD (SomatoSensory Affectional Deprivation) theory of brain development and behavior that is held to have certain sexually dimorphic characteristics. These research projects were supported by the National Institute of Child Health and Human Development (NICHD), National Institutes of Health.

Lateral skull x-rays were available on 961 males from ages 6-76 years and on 816 females from ages 5-60 years. Information from the lateral skull x-rays were transferred to computer-tape utilizing the standardized Broadbent-Bolton roentgenographic cephalometer for computer analyses.

Although, brain area growth measurements were significantly greater for males than females, statistically significant and high intercorrelations between cerebellar/frontal lobe brain areas and cerebellar/midbrain areas were obtained for females beginning with puberty through age 20 years but were uncorrelated for males. The implications of these findings for SSAD theory postulates of sexual brain dimorphism in psychosocial and sexual functioning between males and females will be discussed.

James W. Prescott, Ph.D.  Current address
Director
Institute of Humanistic Science
5155 Luigi Terrace #21
San Diego, CA 92122
212 Woodsedge Drive
Lansing, NY 14882
http://www.violence.de
http://www.touchthefuture.org/prescott
http://www.montagunocircpetition.org
CEREBELLAR - FRONTAL LOBE BRAIN GROWTH AREA CORRELATIONS FOR MALES AND FEMALES FROM AGES <10 TO 20 YEARS

** p < .01

---

MALE - N 27 74 119 123 94 43 17
FEMALE - N 37 97 160 154 124 66 18