

‘Born this Way’?: Prenatal Exposure to Testosterone May Determine Conflict Behavior

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Abstract

It is documented that fetal exposure to sexual hormones have long lasting effects on human behavior. The second-to-fourth digit ratio is a putative marker for prenatal exposure to testosterone (compared to estrogens) while in uterus with higher relative exposure to testosterone results in lower digit ratio. Although the existing literature documents the effect of digit ratio in making various decisions, no study till date studies the effects in strategic situations – especially in conflicts. We fill in this gap by observing the effects in conflict behavior. Based on a previously obtained large sample of volunteer student subjects, we selectively invite subjects to the experimental laboratory if their right-hand digit ratio is in the top (High type) or bottom (Low type) tercile for their gender. Unbeknownst to the subjects, we perform a controlled match of High and Low types as opponents in a 2-person rent-seeking Tullock contest. We find that low digit ratio males expend significantly higher effort than their high digit ratio counterparts, that is, they are more aggressive. The results go in the opposed direction for females: Low types are more strategic. Results from mixed sessions show that Low types indeed earn more money than their H counterparts.