

# Juvenile Training Immersion Program:

## Lesson 42 – Raising Race

### ANNOTATED BIBLIOGRAPHY

### RACE AND ADOLESCENT DEVELOPMENT

Adolescent development manifests across all racial and socio-economic groups similarly. A number of studies have controlled for race and socio-economic status, finding no significant differences in key features of adolescence. Not only have studies confirmed that psychological and psychosocial development is similar across racial and socio-economic groups, but self-reported studies on adolescent behavior confirm that adolescent development manifests in similar behavior across racial and socio-economic lines as well. Studies have shown, however, that poverty does have an impact on neurological development.

#### I. Adolescent Development Studies Controlling for Race and Socio-economic Status

Dustin Albert & Laurence Steinberg, *Age Differences in Strategic Planning as Indexed by the Tower of London*, 82 *CHILD DEV.* 1501 (2011).

- Researchers studied the strategic planning abilities in participants ages 10-30, controlling for ethnicity and socio-economic status and finding similar levels of maturation across groups.
- Researchers administered the Tower of London task, a tool developed to measure the ability to plan ahead and use complex, integrative decision-making skills.
- Researchers found that although strategic planning improved steadily as youth mature, an *advanced* ability to strategically plan did not develop until ages 22-25.

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Elizabeth Cauffman et al., *Age Differences in Affective Decision Making as Indexed by Performance on the Iowa Gambling Task*, 46 *DEVELOPMENTAL PSYCHOL.* 193 (2010).

- In this study, researchers found a preference in adolescents for risk taking and for short-term reward over long-term gain, with no significant differences between ethnicities or socio-economic status.
- Researchers also discovered that adolescents are more responsive to positive feedback and less deterred by loss than adults.
- Researchers measured affective decision-making through having 901 participants, ages 10 to 30, participate in a modified version of the Iowa Gambling Task.
- Researchers concluded that decision-making and risk assessment improves throughout adolescence due to affective processing rather than cognitive maturation for all youth.

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Laurence Steinberg et al., *Age Differences in Future Orientation and Delay Discounting*, 80 CHILD DEV. 28 (2009).

- In this study, researchers controlled for both ethnicity and socio-economic status and found that youth of similar ages in the study exhibited similar levels of weak future orientation across ethnicity and socio-economic status.
- Researchers measured future orientation and delay discounting through participants' undertaking of a number of computerized tasks to measure these attributes, as well as their completion of self-report measures.
- Youth under the age of 16 of all racial groups had a willingness to accept a smaller reward delivered sooner than a larger one later. They self-reported that they were less concerned about the future and less likely to anticipate the consequences of their decisions than older youth.
- “[Researchers did not] find significant interactions between the repeated time factor and gender, ethnicity, IQ, or SES, suggesting that individuals of different ages, sexes, and ethnic groups, socio-economic back-grounds, and intelligence levels show comparable patterns of discounting over the delay intervals examined here.” *Id.* at 36.

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Laurence Steinberg et al., *Age Differences in Sensation Seeking and Impulsivity as Indexed by Behavior and Self-Report: Evidence for a Dual Systems Model*, 44 DEVELOPMENTAL PSYCHOL. 1764 (2008).

- Researchers measured both sensation-seeking and impulsivity amongst a sample of 935 participants, controlling for ethnicity and socio-economic status, and found that youth across all ethnic and socio-economic groups exhibited similar patterns in sensation-seeking and impulsivity.
- Researchers used both self-report questionnaires and behavioral tasks to assess sensation-seeking and impulsivity.
- Researchers found that sensation-seeking behaviors increased between the ages of 12 to 15 (initiating around the beginning of puberty), and then steadily declined.
- Impulsivity was found to steadily decline from age 10 through adolescence and well into early adulthood. Adolescents younger than 16 demonstrated significantly less impulse control than 16- to 17-year-olds, and 16- to 17-year-olds demonstrated significantly less impulse control than 22- to 25-year-olds.
- After age 15, adolescent vulnerability to risky behavior steadily decreases as sensation-seeking decreases, and impulse control continues to increase into early adulthood.

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- Evidence from this study is consistent with adolescent brain research that demonstrates that the brain systems (cognitive control system) linked to impulse control and self-regulation do not fully develop until early adulthood. In contrast, the brain systems (socio-emotional system) linked with sensation-seeking become more highly aroused in early adolescence.

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Laurence Steinberg & Kathryn C. Monahan, *Age Differences in Resistance to Peer Influence*, 43 *DEVELOPMENTAL PSYCHOL.* 1531 (2007)

- Researchers measured resistance to peer pressure and controlled for ethnicity and socio-economic status, finding that between 10 and 14, little growth in the ability to resist peer pressure occurs, that between 14 and 18 resistance to peer pressure increases linearly, and that between 18 and 30 little growth occurs, in all groups.
- Researchers conducted a series of interviews and had participants complete computerized tasks in a series of three separate longitudinal studies.
- Researchers found that patterns in resistance to peer influence vary only slightly by ethnicity and socio-economic status, and generally all groups follow the same basic age pattern in developing resistance to peer pressure.

## II. Self-Report Studies on Adolescent Behavior Across Race and Socio-economics

LLOYD D. JOHNSON ET AL., *MONITORING THE FUTURE: NATIONAL SURVEY RESULTS ON DRUG USE 1975-2010. VOLUME I: SECONDARY SCHOOL STUDENTS* (2011)

- *Monitoring the Future* is a study based on self-reporting conducted by researchers at the University of Michigan which surveyed 17,000 high school students in 130 high schools nationwide regarding their use of alcohol and different types of drugs. The data is presented as graphs, and tracks the trends from 1974 to 2010. Researchers break the data down and show differences between gender, race (Hispanic, white, and black), education level of parents, population density, region and college plans, and presents the data by grade level. The data suggests that black youth self-report using these various substances less than the other groups.
- By the 12<sup>th</sup> grade, white youth report using illicit drugs or alcohol more than any other group.

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*Youth Online: High School YRBS*, CENTERS FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/mmwr/pdf/ss/ss6304.pdf> (last visited June 18, 2014)

- The Youth Risk Behavior Surveillance System (YRBSS) is a self-report survey administered by the Center for Disease Control administered to thousands of youth

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throughout the country. This survey contains questions on violence as well as drug use. The statistics are as recent as 2013.

- This self-report data indicates that at least according to self-report measures, white youth are engaged in illegal behavior at similar or higher rates compared to youth of color.
  - Driving Drunk: 10.4% of white youth, 11.6% of Hispanic youth, and 6.2% of black youth.
  - Carrying a Weapon: 20.8% of white youth, 15.5% of Hispanic youth, and 12.5% of black youth.
  - Carrying a Weapon to school: 5.7% of white youth, 3.9% of black youth
  - Carrying a Gun: 10.7% of white male youth, 9.8% of black male youth and 7.5% of Hispanic male youth.
  - Current Marijuana Use: 28.9% of black youth, 27.6% of Hispanic youth, 20.4% of white youth.
  - Having Been in a Physical Fight on School Property: 12.8% of black youth, 9.4% of Hispanic youth, 6.4% of white youth.

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## II. Poverty and Neurological Development

Kimberly G. Noble et al., *Family Income, Parental Education and Brain Structure in Children and Adolescents*, 18 *NATURE NEUROSCIENCE* 773, 777 (2015).

- Researchers tracked the neurological development of over 1000 children.
- The study found that parental education and income accounted for variation in independent characteristics of brain structural development in regions that are critical for the development of language, executive functions, and memory.
- Parental education was linearly associated with children’s total brain surface area. Family income was logarithmically associated with surface area, implying that for every dollar in increased income, the increase in the child’s brain surface area was proportionally greater at the lower end of the family income spectrum.