

James Garbarino, Ph.D.

Consulting in Child and Adolescent Development

1333 W. Devon Avenue
#414 Chicago IL 60666

**RE: Scientific Rationale to Extend the
Graham/Roper/Miller protections upward from age
18 to 25**

I am offering my analysis of why it is scientifically justifiable to extend the protections offered under the Graham/Roper/Miller US Supreme Court decisions upwards from age 18 to age 25.

Developmental science has continued to evolve since the *Roper v. Simmons* decision in 2005 and the *Miller v. Alabama* decision in 2012. Current developmental science teaches that individuals in their early 20's should not be treated in the same way as "adult" offenders—whether the issue be life without parole sentences or capital punishment. One of the principal authors of the American Psychological Association's amicus brief in the *Simmons* and *Miller* cases (Laurence Steinberg) has acknowledged that accepting age 18 as the cutoff for inclusion in the special, protected category for sentencing purposes was an error, because the research indicates the same issues of immaturity of thinking and feeling that plague adolescents under the age of 18 continue to plague them (albeit with decreasing effect) beyond age 18 until brain maturity solidifies in the mid-

20s. The research underlying this conclusion has emerged primarily because the brain imaging technology necessary to study this phenomenon did not become readily available until the late 1990s, and not until half a decade later was it applied on a widespread basis for *developmental* studies (as opposed to *clinical* studies focusing on brain injuries and disease).

Thus, the age of 18 as a legal “bright line” is not in accord with the current findings of research in developmental science. This research reveals that human brain maturation is ordinarily not complete until the mid-20’s, approximately age 25. This new understanding is especially significant to a case such as the case of Alfonso Swanigan.

Adolescent brains are immature—an immaturity that extends into early adulthood. This includes the frontal lobes which play a crucial role in making good decisions, controlling impulses, focusing attention for planning, and managing emotions. Science now understands that the process of maturation involves three components of brain function: “gray matter”- the outer layer of the brain, “white matter connections” - the brain cells serving as the “wiring” between neurons, and activity in the chemicals or “neurotransmitters” that execute messages within the brain. All three are compromised in an individual under the age of 25. Measures of brain function and structure employing sophisticated technology support this new scientific recognition.

As noted earlier, of special relevance in understanding properly the behavior and thinking of individuals such as

Alfonso Swanigan is the fact that social conditions and experience affect the development of “white matter.” This speaks to the double whammy experienced by youths who are involved in violent crime: they suffer from both the general limitations of unformed brains *and* the disadvantaged functioning that arises from their adverse childhood experiences.

What is more, the hormonal conditions of such youths contribute to impaired brain function (relative to adults) in matters of assessing and taking risks, emotional intensity, and dealing with peers (including social rejection). All of these considerations underlie the current scientific recognition that extended adolescents (people in their early 20’s) are a special class. The process of brain maturation is not complete in any persons until they reach their mid 20’s.

All of this has come to fruition with the development of a two specialized area of research commonly referred to as “late adolescence” or “emerging adulthood.” The former term emphasizes that adolescence does not end at age 18 and in fact continues into the early 20s. The second term comes at the issue from the other end of the spectrum, and recognizes that adulthood is not attained at age 18 or 21, but rather emerges in this period, not to be fully formed until the mid-20s. Thus, it is more appropriate to speak of “emerging adulthood” rather than “early adulthood,” because the latter term suggests that a line has been crossed into adulthood. In contrast, “emerging” adulthood more accurately reflects that fact individuals in the age range 18-25 are not adults (from

the perspective of development), but rather manifest a mix of adolescent and adult characteristics and functioning.

An influential review of this developmental issue was published in 2000 in the American Psychological Association's premier journal (*American Psychologist*) by Jeffrey Arnet, under the title "Emerging Adulthood." Arnet's summary of research findings includes the following:

"Although there is a voluminous literature on adolescent risk behavior and relatively little research on risk behavior in emerging adulthood (Jessor, Donovan, & Costa, 1991), the prevalence of several types of risk behavior peaks not during adolescence but during emerging adulthood (ages 18-25). These risk behaviors include unprotected sex, most types of substance use, and risky driving behaviors such as driving at high speeds or while intoxicated (Arnett, 1992; Bachman, Johnston, O'Malley, & Schulenberg, 1996)."

Note that all the research citations date from the post 1984 period. This is "new evidence," from that perspective. This has led to new institutional recognition of the need to consider "emerging adulthood" as a distinct period in human development. The Society of Clinical and Adolescent Psychology (Division 53 of the American Psychological Association) created a Special Interest Group on "Emerging Adulthood" in 2015 in recognition of the new research being conducted that documented the particular developmental phenomena and issues identified by Jeffrey Arnet in 2000. The mission of this group:

“The Emerging Adulthood Special Interest Group (EA SIG) of the Society of Clinical Child and Adolescent Psychology is dedicated to the promotion of policy, practice, research, and training directly relevant to the psychological assessment and treatment of individuals 18 to 25 years of age.”

Note that this is a special interest group of the Society of Clinical Child and *Adolescent* Psychology. This evolution of research dealing with “emerging adulthood” supports generally an extension of the developmental principles recognized in both *Roper* and *Miller* to adolescents beyond age 18 to include individuals in their early to mid- 20’s. By way of example, Legislation passed in California to amend the penal code (sections 3051 and 4801) in 2015, requires that parole boards apply the *Miller* principles up to age twenty-three. Any individual should not be considered eligible for imposition of the death penalty until (at least) age 26, when brain maturation has been accomplished and fully adult “executive function” and “affective regulation” are consistently present and available—most notably in situations of intense arousal (fear, anger, and lust, for example).

In the *Miller* decision, the court described a set of principles that justified treating adolescents under 18 as a special class when it comes to severe sentencing:

1. Immaturity, impetuosity, less capacity to consider future consequences, and related characteristics that impair juveniles’ ability to make decisions.

2. A family and home environment from which a child cannot extricate himself or herself.

3. The circumstances of the offense, and the role the youth played in those circumstances.

4. Impaired legal competency that puts juveniles at a disadvantage in dealing with police or participating meaningfully in legal proceedings.

5. The youth's potential for rehabilitation.

The age of 18 as a “bright line” is not in accord with the current findings of research in developmental science. This research reveals that human brain maturation is ordinarily not complete until the mid-20’s, approximately age 26. This new understanding provides scientific guidance in the case of individual within this age range—most especially for individuals who have experienced significant adversity during childhood and adolescence, because such adversity can slow the process of brain maturation.

Youth who have experienced significant trauma and deprivation are especially prone to developmental delays on these same dimensions of executive function and affective regulation, with their situation being appropriately categorized as “adolescence squared.” For example, chronic trauma in early childhood (fear, violent

assault, witnessing domestic violence, torture, etc.) can lead to pervasive psychological problems, as the child's brain is "incubated in terror," as it is called by a leading trauma researcher (Bruce Perry). The result can be long-standing and pervasive difficulties in managing emotions ("affective regulation") and engaging in socially competent decision making behavior ("executive function"), such as is found in the adolescence of many youth involved in violent crime.

The federal government's Centers for Disease Control has endorsed an approach to risk accumulation that focuses upon the impact of ten "Adverse Childhood Experiences." These risk factors are assessed through a series of ten questions, including inquiries about childhood experience of physical, sexual, and psychological maltreatment, poverty, domestic violence, household substance abuse, parental separation or divorce, depression or suicide in a family member, and incarceration of a family member. While not encompassing all possible negative influences on development (e.g. the impact of racism and educational impairment) these ten factors have proved to be powerful in accounting for differences in negative outcomes extending into adulthood—e.g. accounting for 65% of the variation in suicide attempts, 55% of the variation in substance abuse, 45% of the variation in depression and 30% of the variation in violent behavior.

For purposes of understanding the lives of the "general population," it may be sufficient to report measures of health and well-being in which the lives of adults who

had an ACE score of zero (some 36% of the general population), one (26%), two (16%), or three ACE's (10%) are compared with those with four or more (13% of the population). But in the case of appreciating the developmental damage experienced by many individuals who commit murder it is necessary to appreciate the impact of extraordinarily high scores that are rare in the general population, but relatively common in this group. Only 4% of the general population has an ACE score of five. Only 2% have a score of six. Less than 1% has a score of seven or eight, and the percentage with nine or ten is even smaller—on the order of .1%. Among defendants involved in murder cases it is not uncommon to have such unusually high scores. **The average score of violent youth I have assessed over the last 25 years is seven.** This puts them in the worst 1% of American kids in terms of experiencing childhood adversity. **Thus, they experienced more childhood adversity than 99 out of 100 kids in America.**

In many cases of individuals assessed prior to the late 1990s, the science of brain development had not progressed to the point where commonly observed problems with executive function and affective regulation could be recognized for what they were: developmental brain immaturity.

This all supports an extension of the developmental principles recognized in both Roper and Miller to extended adolescence and emerging adults that surely includes individuals in their early 20's. By way of example, Legislation passed in California to amend the

penal code (sections 3051 and 4801) in 2015, requires that parole boards apply the *Roper/Graham/Miller* principles up to age twenty-five.

Professional Background and Credentials:

I am a developmental psychologist who is a member and Fellow of the American Psychological Association. From 1989-1990, I served as president of the Association's Division on Child, Youth and Family Services. I am currently Maude C. Clarke Professor of Psychology at Loyola University Chicago. Prior to this I served as Elizabeth Lee Vincent Professor of Human Development at Cornell University in Ithaca, New York and from 1985 to 1994, as President of the Erikson Institute for Advanced Study in Child Development in Chicago, a graduate school and research center.

I am the author of over 100 scholarly articles and book chapters dealing with family, child, and adolescent development issues, with an emphasis on violence and trauma, and I am the author or editor of 26 books including *Miller's Children: Why Giving Teenage Killers a Second Chance Makes Sense for All of Us* (2018), *Listening to Killers: Lessons Learned from My 20 Years as a Psychological Expert Witness in Murder Cases* (2015), *Lost Boys: Why Our Sons Turn Violent and How We Can Save Them*. (1999), *Children and the Dark Side of Human Experience* (2008), *See Jane Hit: Why Girls Are*

*Becoming More Violent and What We Can Do About It (2006),
And Words Can Hurt Forever: How to Protect Adolescents from
Bullying, Harassment and Emotional Violence (2003),
What Children Can Tell Us (1989), The Psychologically
Battered Child (1986), Children in Danger: Coping with the
Consequences of Community Violence (1992), No Place
To Be A Child: Growing Up in a War Zone (1991),
Raising Children in a Socially Toxic Environment (1995),
Adolescent Development: An Ecological Perspective.
(1985), and for children Let's Talk About Living in a
World With Violence (1993).*

My work with children and youth experiencing severe violence has included communities across the United States and war zones across five continents. I was the first recipient of the C.

Henry Kempe Award from the National Conference on Child

Abuse and Neglect. In 1989, I received the American Psychological Association's Award for Distinguished Professional

Contributions to Public Service, and in 1995, the Dale Richmond Award from the American Academy of Pediatrics, specifically honoring my work in the field of community violence and trauma. I have served as a consultant to a wide range of organizations, including the American Medical Association, the National

Committee to Prevent Child Abuse, and the FBI. I have received awards for my empirical research, including in 1992, from the Society for Psychological Study of Social Issues. I have been qualified as an expert in judicial proceedings.

A handwritten signature in black ink that reads "James Garbarino". The signature is written in a cursive, flowing style.

James Garbarino, Ph.D.
Date: October 1, 2018