

# Developmental & Ecological Perspective on the Intergenerational Transmission of Trauma & Violence

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*The focus of this essay is on understanding the development and maintenance of patterns of violent behavior for the purpose of identifying points of prevention and intervention. Close attention is paid to using person-centered language that does not conflate exhibiting violent behaviors with being a violent person. There is a meaningful perceptual difference between discussing the behaviors of a violent person versus discussing a person who engaged in violent behaviors: the former is more likely to be associated with immutable characteristics of a person and the latter is more likely to be associated with attempts at understanding social and contextual causes of the behavior.*

When it comes to the intergenerational transmission of trauma and violence, the imagination of American policy-makers has largely remained stuck on what to do after victims become victimizers. This focus underutilizes the wealth of research detailing the host of risk and protective factors that determine the likelihood that any given child growing up with traumatic levels of adversity will become an adolescent with violent patterns of behavior.<sup>1</sup> The importance of shifting our gaze to the long lead-up to violent offending is highlighted by research showing that early experiences of victimization are a stronger predictor of later involvement in violence than is early involvement in violence.<sup>2</sup> From this vantage point, prevention can be conceptualized first as prevention of victimization and second as resilience supports for victims. To advance this framing, throughout this essay, I use the term *intergenerational transmission of trauma and violence* rather than *transmission of violence*. It is when the trauma of violence – cultural, economic, and interpersonal violence – in one generation goes unhealed that it is passed down to the next, in one form or another.<sup>3</sup>

Because the focus of this essay is on understanding the development and maintenance of violent behavior patterns for the purpose of identifying points of prevention and intervention, close attention is paid to using person-centered language that does not conflate exhibiting violent behaviors with being a violent

person. There is a meaningful perceptual difference between discussing the behaviors of a violent person and discussing a person who engaged in violent behaviors; the former is more likely to be associated with immutable characteristics of a person, and the latter is more likely to be associated with attempts at understanding social and contextual causes of the behavior.

The combination of chronic exposure to traumatic events and limited access to coping supports describes the life contexts of many children growing up in low-income families residing in low-income neighborhoods. Despite this, research consistently shows that the overwhelming majority of these children do not engage in outward displays of violence: only 20 to 30 percent of abused and neglected children engage in violent behaviors as adolescents.<sup>4</sup> Essentially, victims of abuse and neglect are at significantly elevated risk for engaging in violent behaviors, *but the overwhelming majority do not develop violent patterns of behavior as adolescents.*

Events capable of causing trauma span a wide range of situations including mental, physical, verbal, and sexual abuse; exposure to community and domestic violence; food and housing insecurity; and many other adverse life events. Trauma is not the event itself, but the psychological and emotional wounds that persist after the traumatic event has passed.<sup>5</sup> Almost everyone experiences at least one potentially traumatic event, and most of those events, instead of being traumatic, spur the development of new competencies. Stress becomes traumatic when it is accompanied with the loss of physical, psychological, and/or emotional safety in ways that overwhelm an individual's or community's ability to cope.<sup>6</sup> An individual or community becomes traumatized when those psychological and emotional wounds persist without adequate coping supports, or they are repeatedly exposed to new traumatic experiences without the time needed to recover from the previous trauma.

Especially for population health issues like interpersonal violence, racial and ethnic inequality in ecological context cannot be ignored. In 2016, approximately thirty-seven of every one hundred thousand Black men died from homicide; for White men, it was approximately four of every one hundred thousand.<sup>7</sup> This gaping disproportionality can only be understood through the lens of the intergenerational transmission of the trauma of the racial and ethnic violence on which the United States was founded.<sup>8</sup>

**T**he complexity of the intergenerational transmission of trauma and violence is best understood by integrating developmental ecological theories of behavior with research that highlights racial and ethnic inequalities in ecological context.<sup>9</sup> Behavior is developmental and ecological, which means that violent behavior patterns observed in adolescence and young adulthood did not suddenly emerge but were built over time by ecological risk factors (society, community, school, family, and peer) and individual risk factors (psychological

and biological vulnerabilities).<sup>10</sup> These risk factors also identify numerous points across the life course for prevention and intervention.

This brief review highlights three developmental ecological theories that together aid our understanding of the processes that underlie the intergenerational transmission of trauma and violence.<sup>11</sup> First, social learning theory illustrates how behavior patterns, including violent behavior, are learned and maintained through modeling and reinforcement contingencies in the context of one's previous and current social interactions.<sup>12</sup> When applied to understanding the caregiving environment, children learn violence by experiencing it from their caregivers and/or witnessing it among the adults in their lives. Experiencing and witnessing these interactions teaches techniques for violence and teaches approval for the use of violence to manage one's emotional states and interpersonal interactions.<sup>13</sup>

Second, social information processing theories detail how the development of biased perceptions, such as the likelihood of attributing hostile intent to other's actions, increases the likelihood of exhibiting aggressive behaviors.<sup>14</sup> Children who have a history of experiencing and witnessing violence in their homes, community, and/or school may develop a social information processing bias toward interpreting ambiguous social interactions as threatening. They may also come to believe that interpersonal difficulties are best responded to with aggression.<sup>15</sup> Because this tendency toward aggressive responses alienates prosocial peers, these children tend to have peer groups that are concentrated with other hostile and aggressive individuals, thereby reinforcing violent patterns of behavior.<sup>16</sup>

Third, theories of differential neurobiological susceptibility to context detail how individual differences in sensitivity to one's developmental context increases the likelihood of emotional dysregulation and externalizing behaviors in response to chronic exposure to traumatic stressors.<sup>17</sup> Theoretical and empirical studies of differences in neurobiological responsivity to environmental context help us understand the large variation in youth resiliency to growing up in adverse environments.<sup>18</sup> Research on the biology of adversity provides concrete evidence that chronic activation of the neurobiological stress response system compromises the biological mechanisms responsible for adaptive coping and management of arousal.<sup>19</sup> What must not be overlooked in these theories is that it is the *interaction* of nature and nurture: a child who is vulnerable to developing antisocial behaviors in response to harsh parenting is also the child who is primed for developing prosocial behaviors in response to nurturing parenting.<sup>20</sup> Essentially, genetically determined neurobiological susceptibility to the environment is beneficial when the environment is supportive and exceptionally harmful when the environment is deleterious.

**M**any criminal justice questions about the intergenerational transmission of trauma and violence begin too late in the cycle by focusing on whether and how abuse and neglect from one's biological family leads

to adolescent perpetration of violence. We need to expand the lens to questioning the nested ecological systems that place children at risk for abuse and neglect.<sup>21</sup> Without this perspective, it is easy to overlook the fact that most of the factors that increase the likelihood that abused and neglected children will develop violent behavior patterns as adolescents are the same factors that increase the likelihood that parents will abuse and neglect their children.<sup>22</sup> The search for direct pathways from experiencing abuse to perpetuating violence also runs contrary to research showing that experiencing neglect appears to be as much of a pathway to adolescent violence as experiencing abuse, suggesting that the pathways are complex and contextual.<sup>23</sup>

The intergenerational transmission of trauma and violence is determined by the accumulation of risk factors across one's life course coupled with the lack of protective factors. This accumulation of exposure to violence and other traumatic experiences is more than additive: it has an exponential relationship with the likelihood of poor developmental outcomes.<sup>24</sup> The effects of exposure to violent, traumatic, and adverse life experiences are also not independent from each other. For example, the effect of exposure to chronic housing and food insecurity and chronic community violence are particularly damaging for the emotional and behavioral development of children who are also growing up in homes with "impaired caregiving system[s]."<sup>25</sup> Especially for children, trauma occurs when high levels of toxic stress are experienced "in the absence of the buffering protection of a supportive adult relationship."<sup>26</sup> Supportive caregivers are pivotal in determining whether potentially traumatic experiences will instead be tolerable.

The inconvenient truth about preventing adolescent violence is that children who experience abuse and neglect early in their childhood are significantly more likely to experience *polyvictimization*: repeated subsequent victimization and trauma throughout their life course.<sup>27</sup> Polyvictimization creates diverging developmental trajectories: some children's developmental trajectories are repeatedly negatively affected by needing to recover from traumatic life experiences, while other children's developmental trajectories are advantaged by having to cope with only a limited number of traumatic events that are discrete from their otherwise developmentally supportive environment. Exposure to these divergent development trajectories is not racially and ethnically neutral. Black, Indigenous, and Latinx children have a significantly higher likelihood of experiencing chronic trauma without coping supports, and White children have a significantly higher likelihood of experiencing a limited number of traumatic events coupled with coping supports.<sup>28</sup>

The risk and protective factors embedded in the nested ecological system in which children live are the greatest early opportunities of both prevention before violent behaviors emerge and intervention at the earliest sign of violent behaviors.<sup>29</sup> This nested set of ecological contexts begins with formal and informal social policies that shape all other ecological contexts. Formal and informal social

policies are large determinants of who gets access to what resources and the extent to which there is a network of preventative social supports.

The second ecological context is the community and the opportunities and constraints afforded by the community in which the family resides, as well as the ability to escape high-risk communities. Community contexts have a large effect on exacerbating or mitigating both the likelihood of exposure to abuse and neglect and the extent to which abuse and neglect will lead to antisocial adolescent behavior. The third ecological context is the schools to which children have access. This is often considered part of the community but is important to highlight separately when considering child and adolescent outcomes. Schools are societally sanctioned and funded contexts that can either reinforce existing oppressions and be sites of retraumatization or provide safe contexts and opportunities for vulnerable children to break intergenerational family trauma and broader oppressions.

The fourth ecological context and the one that has the strongest direct influence on children and youth is the immediate and extended family caregiving environment in which the child develops. Although this nested set of ecological contexts ends with the child's direct exposure to abuse and neglect at home, what the ecological perspective highlights is that the *nesting* of ecological contexts combines to differentially place whole communities of children at risk for abuse and neglect.<sup>30</sup>

**T**he negative effects of neurobiological sensitivity to one's developmental environment can occur through two stress vulnerability pathways: genetic neurobiological sensitivity to ecological context and compromised neurobiological functioning as a result of chronic trauma. Through research on the biology of adversity, we are beginning to understand how violent behaviors can become a neurobiologically triggered impulsive reaction to emotional agitation that is engaged before the rational decision-making areas of the brain can process the experience and suppress action.

The first pathway, genetic neurobiological sensitivity to ecological context, is based on theory and evidence showing that some children are born with higher levels of sensitivity to both the helpful and harmful aspects of the contexts in which they live.<sup>31</sup> In developmentally adverse home and community environments, sensitive children's exaggerated neurobiological stress arousal systems result in maladaptive cognitive, emotional, and behavioral functioning that over time solidifies into anxious, impulsive, and externalizing patterns of behavior.<sup>32</sup>

The second pathway, compromised neurobiological functioning of the stress response system, begins after birth and is initially caused by chronic exposure to traumatic stressors that becomes biologically embedded as a changed neurobiological sensitivity to one's environment.<sup>33</sup> These neurobiological changes include heightened attentional vigilance and bias to threat and compromised ability to experience, tolerate, and manage emotional arousal.<sup>34</sup> These are not determin-

istic outcomes. Because our neurobiological systems are continuously developing in response to input, children who have been neurobiologically “changed” in response to their developing environment can be supported in “resetting” their neurobiological stress response systems to enable more adaptive coping.<sup>35</sup>

Only by integrating a range of developmental theories and in relation to the ecological context can something as complex as violent patterns of behavior be understood, especially if the goal is identifying points of prevention and intervention.<sup>36</sup> Reviews of developmentally based interventions point to several time periods and contexts across an individual’s life course, from the prenatal period to late adolescence, for evidence-based interventions that decrease the likelihood that children placed at risk will develop violent patterns of behavior as adolescents. A few examples of those time periods and categories of intervention are listed below.

*Prenatal months.* There are numerous known targets for prevention long before children are placed at risk for abuse and neglect. This includes parents’ need for healing from their own abuse and neglect to ensure they have the psychological and emotional capacities to engage in supportive parenting as well as ensuring parents have the socioeconomic and community resources that are associated with reducing the likelihood of abuse and neglect.

*Postnatal months.* Prevention efforts can continue immediately after birth for families with known risk factors. These interventions can be delivered through proven home visiting programs that target parent-infant attachment and parent-infant stress regulation.

*Early childhood.* For children who have experienced abuse and neglect, parent development interventions can be delivered for parents and foster parents to ensure that children’s home environments improve and that any initial learning of violent behaviors is mitigated. Effective interventions can be delivered in as few as ten to twelve weeks.

*School-going years.* The school-going years are an opportune time for direct teaching of the social and emotional skills and the problem-solving and decision-making skills that have been shown to reduce the likelihood that children who have experienced abuse and neglect will be rejected by prosocial peers. This peer rejection increases the likelihood that abused and neglected children’s social interactions become concentrated with children exhibiting aggressive and deviant behaviors, which escalates and reinforces those behaviors.

The school-going years are also the best opportunity for identifying and accessing children placed at risk and delivering mental health supports to help

them cope with the cognitive and emotional effects of abuse, neglect, and other traumatic stressors.

*First contact with the juvenile justice system.* If the goal of the juvenile justice system is desistance, the focus should be on anything but detention. This could include implementing evidence-based interventions such as community supervision and apprenticeship diversion programs, coupled with interventions targeting psychological and emotional health and adaptive coping skills.

American society has by decision and default largely deferred paying the costs of supporting children who have experienced abuse and neglect until those abused and neglected children enter the juvenile and eventually adult criminal justice system. National estimates of the direct cost of incarcerating youth are about \$401 per day. There are also broader juvenile justice system costs and collateral individual and social costs that result from victimization experienced during confinement that are much higher than the direct cost of confinement.<sup>37</sup> In contrast, evaluations routinely show positive financial returns to investing in preventative interventions.<sup>38</sup> However, the current system of family, community, and school interventions repeatedly fails most children placed at risk during the years when prevention and intervention would be most effective. Instead, American society pours money and resources into punishment when victims become perpetrators: “aggression, substance abuse, and other symptoms targeted as problematic behaviors by the legal system are often coping strategies to increase safety and security in individuals with histories of trauma.”<sup>39</sup>

**T**he intergenerational transmission of historical trauma is essential to understanding contemporary racial and ethnic group differences in both victimization and the perpetration of violence. Historical trauma includes three successive phases: 1) a dominant group perpetrating mass traumas on a subgroup of the population, resulting in cultural, familial, societal, and economic devastation; 2) the initial generations that directly experienced these traumas develop negative biological, cultural, psychological, and behavioral symptoms; and 3) unhealed traumas are conveyed to successive generations through a host of societal, contextual, interpersonal, and biological processes.<sup>40</sup>

Given the critical role of the family caregiving environment, one highly relevant example of the intergenerational transmission of historical trauma is the extent to which Black children are not raised by their biological parents, children for whom abuse and neglect do not necessarily cease once they are placed in another home.<sup>41</sup> In 2016, approximately 23 percent of children in foster care were Black, though Black children made up only 14 percent of the total child population; in comparison, 44 percent of children in foster care were White, while White children make up 50 percent of the child population.<sup>42</sup> This racial and ethnic dispar-

ity is directly due to the ways that slavery created and necessitated the insecure parent-child attachment that has been passed down through generations.<sup>43</sup> It also owes to the ways that Jim Crow, segregation, mass incarceration, and other social policies have made it disproportionately difficult for Black families to create the conditions that are conducive to secure and supportive parenting.<sup>44</sup>

Below is an incomplete accounting of the perpetuation of historical trauma through racial and ethnic disparities in present-day ecological factors that affect the likelihood that an adolescent will engage in violent behaviors.<sup>45</sup>

*Historical and contemporary social policies and practices*

- Colonization, slavery, Jim Crow
- Housing segregation, economic discrimination, disproportionate incarceration
- Popularization of negative stereotypes through mainstream media
- Disrupted cultural transmission of history and heritage

*Community*

- Exposure to daily neighborhood activities and social interactions that increase risk
- Experiencing and/or witnessing chronic violence and assault
- Unconcealed alcohol and drug abuse
- Low levels of social capital and social cohesion
- Low quality of public institutions, from school to health care, that promote healthy development and buffer against abuse and neglect at home

*School*

- High concentration of socioeconomically disadvantaged peers
- Lower per-pupil spending, larger class sizes, and less experienced teachers
- Increased behavioral sanctioning with harsh and exclusionary discipline
- Lower levels of safety at school

*Family*

- Poverty and associated housing and food insecurity
- Alcohol and other substance abuse
- Parental incarceration
- Low or lack of emotional bonding among family members
- Chronic or episodic family violence
- Child abuse and neglect

**T**he negative effects of historical trauma are maintained through state sponsored (that is, institutional) retraumatization through the foster care, juvenile justice, educational, and other state systems. As noted above, one



factor associated with whether abused and neglected children will go on to develop violent patterns of behavior is the extent to which they experience continued victimization and other traumatic stressors throughout childhood and adolescence. Institutional retraumatization occurs in juvenile justice and educational settings when those institutions use punitive and coercive sanctions rather than supportive interventions in response to children exhibiting behavioral dysregulation that is the direct result of their inability to cope with traumatic life experiences.<sup>46</sup> Holding the state accountable does not absolve communities and families from the responsibility of contributing to the healthy development of children, but state institutions must be resourced and organized in ways that enable them to meet children where they are.

According to the National Survey of Children's Exposure to Violence, about four million children in the United States are exposed to violence each year, and about half of those children experience lasting trauma.<sup>47</sup> National studies estimate that over 70 percent of children in need of mental health treatment do not receive services, and this is especially true of children in economically disadvantaged families.<sup>48</sup> Because of the self-regulation demands, schools are one of the primary places where children's mental health challenges become detectable, and schools have, by default, become mental health assessment and service delivery institutions.<sup>49</sup> However, without a model for meeting this need, when poor mental health is displayed in the form of challenging classroom behaviors, children are often responded to with practices that retraumatize and decrease, rather than increase, the likelihood of school success.<sup>50</sup> When schools fail, dysregulated children show up in the juvenile justice system, and as numerous studies estimate, mental illness is two to three times more prevalent among incarcerated juveniles.<sup>51</sup>

**H**ow we think about and respond to children and youth involved in gangs should be intimately connected with our understanding of early and continued trauma throughout one's development; however, it is often dismissed as immaterial. Gang membership peaks between the ages of fourteen and fifteen and is disproportionately high among Black and Latinx youth coping with trauma and adversity.<sup>52</sup> These are the ages when adult social control is low *and* youth decision-making capacities are still developing. Additionally, the neurobiological underpinnings of planful decision-making among the youth placed at highest risk for gang membership has often been negatively affected by exposure to abuse, neglect, and other traumas.<sup>53</sup>

There are three parts to the connection between trauma and gang involvement: 1) precursor traumatic experiences that increase the likelihood of gang involvement; 2) exposure to traumatic violence during the period of gang involvement; and 3) lingering trauma that is a consequence of both the precursors and gang involvement.<sup>54</sup>

*Traumatic precursors that have been associated with an increased likelihood of gang membership among youth growing up in adverse environments*

- Physical and sexual victimization at home and/or in the community
- Post-traumatic dissociation and emotional numbing
- Chronic stress of poverty and associated housing and food insecurity
- Self-medicating through substance abuse

*Traumatic experiences during a youth's gang-involved years*

- Violent victimization by own and rival gang members
- Witnessing of traumatic violence
- Perpetration induced trauma from feeling compelled/forced to commit violent acts that violate one's personal moral code

*Traumatic consequences that persist after desisting in gang involvement*

- Biased perception of the world as dangerous and threatening
- Depression, general anxiety, and annihilation anxiety
- Self-medicating through substance abuse
- Inability to engage in the adaptive coping needed to establish economic self-sufficiency

In the United States, the connections between victimization, trauma, and gang membership are overlooked in favor of labeling children and youth involved in gangs as criminals and reacting to their behaviors according to that criminal status. In sharp contrast, when similar outcomes are observed among children and youth recruited into armed resistance groups in other countries, we call them child soldiers and respond to them based on that victimization status.<sup>55</sup> Researchers suggest that this difference in perception is partly due to the belief that gang membership is motivated by individual factors such as financial gain, social status, and social inclusion.<sup>56</sup> This belies the reality that gang membership is often based on an attempt to obtain protection from victimization.<sup>57</sup> The American criminal justice system insists on ignoring the ways that violent patterns of behavior are learned and maintained by the ecological context in which the individual lives and is especially blind to racial and ethnic differences in ecological context.

Nowhere is this more evident than in the divergent approaches to intervention based on the perception of child soldiers as victims and youth gang members as criminals. There is clear American advocacy for the reintegration and rehabilitation of international child soldiers. This includes recognition of the fact that if child soldiers are to be successfully rehabilitated, there needs to be large-scale disarmament and collective healing to demilitarize the environment and create a sense of safety. This is coupled with psychosocial interventions to successfully reintegrate them into family and community life and mental health interventions to aid them in coping with the lingering symptoms of post-traumatic stress

disorder.<sup>58</sup> In contrast, little is done to aid former youth gang members in the United States. They are left to themselves to identify the need for assistance and seek out coping supports. As developmental psychologist Patricia Kerig and colleagues have noted, “for [American] youth growing up in violent and gun-ridden inner-city environments, giving up gang life might seem to be the equivalent of being individually disarmed in a still heavily militarized zone.”<sup>59</sup>

**E**xposure to assault and gun violence is an ever-present threat in too many economically disadvantaged and mostly minority neighborhoods, and in the wake of youth assaults, shootings, and homicides are traumatized siblings, friends, and schoolmates.<sup>60</sup> Predictably, many of these children arrive at school displaying varying levels of dysregulation. However, very few enter schools that teach them how to regulate the complex cognitive, emotional, and behavioral dysregulation caused by trauma. Many schools instead respond with punitive and exclusionary discipline when these students are unable to meet behavioral expectations.

Because chronic exposure to traumatic stressors compromises children’s abilities to regulate their emotions and behaviors, they often react to even the smallest classroom frustrations with defiant, escalating, or avoidant behaviors. Punitive and exclusionary disciplines are often mistakenly thought of as consequences that will motivate behavior change; however, they have been proven ineffective largely because they do not teach new behavioral competencies and have collateral damages.<sup>61</sup> Instead, such discipline increases the likelihood of academic failure, grade retention, and dropping out as students often miss important educational opportunities and become stigmatized by staff and peers. Additionally, schools with higher levels of punitive and exclusionary discipline have a more negative school climate that has been shown to harm the educational experiences of all the students in the building.<sup>62</sup>

Given the many negative effects of punitive and exclusionary discipline, it is particularly disturbing that it is primarily used for perceived insubordination and disrespect rather than being used as intended: for behaviors that threaten the safety of peers and staff.<sup>63</sup> Furthermore, because racially and ethnically marginalized students, and Black students in particular, are subject to greater punishment than their White peers, even though evidence shows that Black students do not misbehave at higher rates, school disciplinary systems compound existing societal oppressions.<sup>64</sup> As many researchers and policy-makers conclude, punitive and exclusionary discipline are “disproportionately severe and uniquely far-reaching” for Black and Latinx students.<sup>65</sup>

Much has been written to link punitive and exclusionary discipline with the school-to-prison pipeline. The strongest manifestation of this is the presence of police offices in schools along with other authoritarian social control policies such

as random locker and bag searches and metal detectors.<sup>66</sup> These practices are primarily in schools attended by racially and ethnically marginalized urban students and work against their developing a strong sense of school belonging because they foster antagonistic relationships between and among students and staff, and incite emotional distress and lowered self-esteem.<sup>67</sup>

When police are in schools, student misbehavior becomes criminalized, and discipline problems that were previously handled by school staff are delegated to the school police officer.<sup>68</sup> This creates a pathway from the school to the juvenile justice system, rather than a pathway that directs students exhibiting dysregulated behaviors to the social and emotional health counselor and then back into the classroom. This alternative pathway is trauma-responsive discipline, which focuses on building students' capacities to manage dysregulated behaviors, replace them with regulated behaviors, and ultimately cultivate resiliency.<sup>69</sup>

I have focused on traumas that are passed from one generation to the next and from one victim to the next via interpersonal violence: one individual or group of individuals doing harm to another. This means that *relational damage is created that can only be healed through relational repair*. Once we understand that the behaviors of adolescents who are violent offenders were developed and are maintained through the accumulation of interpersonal traumas, it becomes clear that *the criminal justice system, a system designed to inflict relational harm by removing the individual from their family and community, cannot be the primary source of intervention*.

As American society is waking up to the need to hold police officers and the criminal justice system accountable for their roles in state-sponsored violence, we must similarly hold all our public institutions accountable for state-sponsored retraumatization of children. Because of their access to and time with children, schools are uniquely positioned to provide children placed at risk for developing violent patterns of behavior with preventative and rehabilitative interventions.<sup>70</sup> From kindergarten to twelfth grade, a student spends more than fifteen thousand hours in school. How those hours are used has a significant effect on breaking versus reinforcing the intergenerational transmission of trauma and violence.

Schools, our largest state sponsored socializing agent, must change if they are to be transformative in the lives of children coping with abuse and neglect at home and violence in their neighborhoods and social networks. To this end, there are new frameworks and models for schools that intentionally build resilience: the capacity to engage in adaptive coping that enables one to be functional in the short and long term despite acute or chronic experiences of trauma and adversity.<sup>71</sup> Schools can intervene for effective violence prevention in two critical areas: 1) decreased exposure to risk factors such as community violence and contact with antisocial peers by increasing attendance and sense of school belonging and 2) increased exposure to protective factors such as strengthening emotional and

behavioral regulation and the intentional development of planful decision-making through the provision of psychological interventions at school.<sup>72</sup>

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#### ENDNOTES

- <sup>1</sup> U.S. Surgeon General, *Youth Violence: A Report of the Surgeon General* (Washington, D.C.: U.S. Department of Health and Human Services, 2001).
- <sup>2</sup> Lesley McAra and Susan McVie, "Understanding Youth Violence: The Mediating Effects of Gender, Poverty and Vulnerability," *Journal of Criminal Justice* 45 (2016): 71–77.
- <sup>3</sup> Lisa J. Berlin, Karen Appleyard, and Kenneth A. Dodge, "Intergenerational Continuity in Child Maltreatment: Mediating Mechanisms and Implications for Prevention," *Child Development* 82 (1) (2011): 162–176; and Sheree L. Toth and Dante Cicchetti, "A Developmental Psychopathology Perspective on Child Maltreatment," *Child Maltreatment* 18 (3) (2013): 135–139.
- <sup>4</sup> Cathy S. Widom and Helen W. Wilson, "Intergenerational Transmission of Violence," in *Violence and Mental Health: Its Manifest Faces*, ed. Jutta Lindert and Itzhak Levav (New York: Springer, 2015), 27–45.
- <sup>5</sup> Wendy D'Andrea, Julian Ford, Bradley Stolback, et al., "Understanding Interpersonal Trauma in Children: Why We Need a Developmentally Appropriate Trauma Diagnosis," *American Journal of Orthopsychiatry* 82 (2) (2012): 187.
- <sup>6</sup> Bessel van der Kolk, *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma* (London: Penguin Books, 2015).
- <sup>7</sup> Marty Langley and Josh Sugarmann, *Black Homicide Victimization in the United States: An Analysis of 2016 Homicide Data* (Washington, D.C.: The Violence Policy Center, 2019), <http://vpc.org/studies/blackhomicide19.pdf>.
- <sup>8</sup> Joy Degruy-Leary, *Post Traumatic Slave Syndrome: America's Legacy of Enduring Injury* (Milwaukie, Ore.: Uptone Press, 2005).
- <sup>9</sup> Widom and Wilson, "Intergenerational Transmission of Violence."
- <sup>10</sup> Todd I. Herrenkohl, Eugene Maguin, Karl G. Hill, et al., "Developmental Risk Factors for Youth Violence," *Journal of Adolescent Health* 26 (3) (2000): 176–186.
- <sup>11</sup> Urie Bronfenbrenner, *The Ecology of Human Development: Experiments by Nature and Design* (Cambridge, Mass.: Harvard University Press, 1979).

- <sup>12</sup> Albert Bandura, *Aggression: A Social Learning Analysis* (Upper Saddle River, N.J.: Prentice-Hall, 1973).
- <sup>13</sup> Amir Abbassi and S. Dean Aslinia, "Family Violence, Trauma and Social Learning Theory," *Journal of Professional Counseling: Practice, Theory & Research* 38 (1) (2010): 16–27.
- <sup>14</sup> Kenneth A. Dodge, John E. Bates, and Gregory S. Pettit, "Mechanisms in the Cycle of Violence," *Science* 250 (4988) (1990): 1678–1683.
- <sup>15</sup> Bram Orobio de Castro, Jan W. Veerman, Willem Koops, et al., "Hostile Attribution of Intent and Aggressive Behavior: A Meta-Analysis," *Child Development* 73 (3) (2002): 916–934.
- <sup>16</sup> Kathryn C. Monahan, Laurence Steinberg, and Elizabeth Cauffman, "Affiliation with Antisocial Peers, Susceptibility to Peer Influence, and Antisocial Behavior during the Transition to Adulthood," *Developmental Psychology* 45 (6) (2009): 1520.
- <sup>17</sup> Marian J. Bakermans-Kranenburg and Marinus H. van Ijzendoorn, "Differential Susceptibility to Rearing Environment Depending on Dopamine-Related Genes: New Evidence and a Meta-Analysis," *Development and Psychopathology* 23 (1) (2011): 39–52.
- <sup>18</sup> Bruce J. Ellis, W. Thomas Boyce, Jay Belsky, et al., "Differential Susceptibility to the Environment: An Evolutionary–Neurodevelopmental Theory," *Development and Psychopathology* 23 (1) (2011): 7–28.
- <sup>19</sup> Michael D. De Bellis, "Developmental Traumatology: The Psychobiological Development of Maltreated Children and Its Implications for Research, Treatment, and Policy," *Development and Psychopathology* 13 (3) (2001): 539–564.
- <sup>20</sup> Grazyna Kochanska, Nazan Aksan, and Mary E. Joy, "Children's Fearfulness as a Moderator of Parenting in Early Socialization: Two Longitudinal Studies," *Developmental Psychology* 43 (1) (2007): 222–237.
- <sup>21</sup> Amie M. Schuck and Cathy Spatz Widom, "Understanding the Role of Neighborhood Context in the Long-Term Criminal Consequences of Child Maltreatment," *American Journal of Community Psychology* 36 (3–4) (2005): 207–222.
- <sup>22</sup> Berlin et al., "Intergenerational Continuity in Child Maltreatment."
- <sup>23</sup> Diana J. English, Cathy Spatz Widom, and Carol Brandford, *Childhood Victimization and Delinquency, Adult Criminality, and Violent Criminal Behavior: A Replication and Extension* (Washington, D.C.: U.S. Department of Justice, 2001).
- <sup>24</sup> Karen Appleyard, Byron Egeland, Manfred H. M. van Dulmen, and L. Alan Sroufe, "When More Is Not Better: The Role of Cumulative Risk in Child Behavior Outcomes," *Journal of Child Psychology and Psychiatry* 46 (3) (2005): 235–245.
- <sup>25</sup> Margaret E. Blaustein and Kristine Kinniburgh, "Intervening Beyond the Child: The Intertwining Nature of Attachment and Trauma," *British Psychological Society Briefing Paper* 26 (2007): 48–53.
- <sup>26</sup> Jack P. Shonkoff and Andrew S. Garner, "The Lifelong Effects of Early Childhood Adversity and Toxic Stress," *Pediatrics* 129 (1) (2012): e246.
- <sup>27</sup> David Finkelhor, Richard K. Ormrod, and Heather A. Turner, "Poly-Victimization: A Neglected Component in Child Victimization," *Child Abuse and Neglect* 31 (1) (2007): 7–26.

- <sup>28</sup> A. L. Roberts, Stephen E. Gilman, Joshua Breslau, et al., "Race/Ethnic Differences in Exposure to Traumatic Events, Development of Post-Traumatic Stress Disorder, and Treatment-Seeking for Post-Traumatic Stress Disorder in the United States," *Psychological Medicine* 41 (1) (2011): 71–83.
- <sup>29</sup> Patrick J. Fowler, Carolyn J. Tompsett, Jordan M. Braciszewski, et al., "Community Violence: A Meta-Analysis on the Effect of Exposure and Mental Health Outcomes of Children and Adolescents," *Development and Psychopathology* 21 (1) (2009): 227–259.
- <sup>30</sup> Gayla Margolin and Elana B. Gordis, "The Effects of Family and Community Violence on Children," *Annual Review of Psychology* 51 (1) (2000): 445–479.
- <sup>31</sup> W. Thomas Boyce, Marla B. Sokolowski, and Gene E. Robinson, "Toward a New Biology of Social Adversity," *Proceedings of the National Academy of Sciences* 109 (S2) (2012): 17143–17148.
- <sup>32</sup> W. Thomas Boyce and Bruce J. Ellis, "Biological Sensitivity to Context: I. An Evolutionary-Developmental Theory of the Origins and Functions of Stress Reactivity," *Development and Psychopathology* 17 (2) (2005): 271–301.
- <sup>33</sup> Udo Dannlowski, Harald Kugel, Franziska Huber, et al., "Childhood Maltreatment Is Associated with an Automatic Negative Emotion Processing Bias in the Amygdala," *Human Brain Mapping* 34 (11) (2013): 2899–2909.
- <sup>34</sup> Bruce D. Perry, "Examining Child Maltreatment through a Neurodevelopmental Lens: Clinical Applications of the Neurosequential Model of Therapeutics," *Journal of Loss and Trauma* 14 (4) (2009): 240–255.
- <sup>35</sup> Bruce D. Perry and Christine L. Dobson, "The Neurosequential Model (NMT) in Maltreated Children," in *Treating Complex Traumatic Stress Disorders in Children and Adolescents*, ed. Julian D. Ford and Christine A. Courtois (New York: Guilford Press, 2013), 249–260.
- <sup>36</sup> For reviews of developmentally based interventions for preventing and reducing violent behavior in children and adolescents, see Sajid Humayun and Stephen Scott, "Evidence-Based Interventions for Violent Behavior in Children and Adolescents," in *Violence and Mental Health: Its Manifold Faces*, ed. Jutta Lindert and Itzhak Levav (New York: Springer, 2015), 391–419; McAra and McVie, "Understanding Youth Violence"; and Sharon Mihalic, Abigail Fagan, Katherine Irwin, et al., *Blueprints for Violence Prevention* (Boulder: Center for the Study and Prevention of Violence, University of Colorado at Boulder, 2004).
- <sup>37</sup> Justice Policy Institute, "Factsheet: The Tip of the Iceberg: What Taxpayers Pay to Incarcerate Youth" updated March 2015, [http://www.justicepolicy.org/wp-content/uploads/justicepolicy/documents/factsheet\\_costs\\_of\\_confinement.pdf](http://www.justicepolicy.org/wp-content/uploads/justicepolicy/documents/factsheet_costs_of_confinement.pdf).
- <sup>38</sup> Peter Greenwood, "Prevention and Intervention Programs for Juvenile Offenders," *The Future of Children* 18 (2) (2015): 185–210.
- <sup>39</sup> Jana D. Pressley and Rachel Smith, "No Ordinary Life: Complex Narratives of Trauma and Resilience in Under-Resourced Communities," *Journal of Aggression, Maltreatment & Trauma* 26 (2) (2017): 139.
- <sup>40</sup> Kathleen Brown-Rice, "Examining the Theory of Historical Trauma among Native Americans," *Professional Counselor* 3 (3) (2013).
- <sup>41</sup> Mark E. Courtney and Sherri Terao, "Emotional and Behavioral Problems of Foster Youth: Early Findings of a Longitudinal Study," in *The Crisis in Youth Mental Health: Critical*

- Issues and Effective Programs*, ed. Hiram E. Fitzgerald, Robert Zucker, and Kristine Freeark-Zucker (Westport, Conn.: Praeger Publishers, 2005), 105–129.
- <sup>42</sup> Kids Count Data Center, “Children in Foster Care by Race and Hispanic Origin in the United States,” The Annie E. Casey Foundation, 2019.
- <sup>43</sup> Judith P. Siegel, “Breaking the Links in Intergenerational Violence: An Emotional Regulation Perspective,” *Family Process* 52 (2) (2019): 163–178.
- <sup>44</sup> Rosario Ceballo and Vonnie C. McLoyd, “Social Support and Parenting in Poor, Dangerous Neighborhoods,” *Child Development* 73 (4) (2002): 1310–1321.
- <sup>45</sup> DeGruy-Leary, *Post Traumatic Slave Syndrome*.
- <sup>46</sup> Dexter R. Voisin and Caitlin M. Elsaesser, “Pathways from Polyvictimization to Youth Problem Behaviors: The Critical Role of School Engagement,” *International Journal of Higher Education* 2 (4) (2013): 15–30.
- <sup>47</sup> Norman Garmezy, “Resiliency and Vulnerability to Adverse Developmental Outcomes Associated with Poverty,” *American Behavioral Scientist* 34 (4) (1991): 416–430.
- <sup>48</sup> Society for Research in Child Development, *Healthy Development: A Summit on Young Children’s Mental Health* (Washington, D.C.: Society for Research in Child Development, 2009).
- <sup>49</sup> Linda Leek-Openshaw, “School-Based Support Group for Traumatized Students,” *Schools Psychology International* 32 (2) (2011): 163–178.
- <sup>50</sup> Maura McInerney and Amy McKlindon, *Unlocking the Door to Learning: Trauma-Informed Classrooms and Transformational Schools* (Philadelphia: Education Law Center, 2014), 1–24.
- <sup>51</sup> Candice L. Odgers, Mandi L. Burnette, Preeti Chauhan, et al., “Misdiagnosing the Problem: Mental Health Profiles of Incarcerated Juveniles,” *The Canadian Child and Adolescent Psychiatry Review* 14 (1) (2005): 26.
- <sup>52</sup> Arlen Egley Jr. and James C. Howell, “Highlights of the 2010 National Youth Gang Survey,” Juvenile Justice Fact Sheet, U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention, 2012, <https://ojjdp.ojp.gov/sites/g/files/xyckuh176/files/pubs/237542.pdf>.
- <sup>53</sup> Dannlowski et al., “Childhood Maltreatment Is Associated with an Automatic Negative Emotion Processing Bias in the Amygdala.”
- <sup>54</sup> Fowler et al., “Community Violence.”
- <sup>55</sup> Patricia K. Kerig, Shannon D. Chaplo, Diana C. Bennett, et al., “‘Harm as Harm’ Gang Membership, Perpetration Trauma, and Posttraumatic Stress Symptoms among Youth in the Juvenile Justice System,” *Criminal Justice and Behavior* 43 (5) (2016): 635–652.
- <sup>56</sup> Noëlle Quéniwet and Shilan Shah-Davis, “Youth and Violence: Drawing Parallels between Child Soldiers and Youth in Gangs,” Working Paper No. 4 (Bristol: Centre for Legal Research, University of the West of England, 2013).
- <sup>57</sup> James C. Howell and Arlen Egley Jr., “Moving Risk Factors into Developmental Theories of Gang Membership,” *Youth Violence and Juvenile Justice* 3 (4) (2005): 334–354.
- <sup>58</sup> Patricia K. Kerig, Cecilia Wainryb, Michelle Sinayobye Twali, et al., “America’s Child Soldiers: Toward a Research Agenda for Studying Gang-Involved Youth in the United States,” *Journal of Aggression, Maltreatment & Trauma* 22 (7) (2013): 773–795.



- <sup>59</sup> Ibid., 786.
- <sup>60</sup> Patrick Sharkey, “The Acute Effect of Local Homicides on Children’s Cognitive Performance,” *Proceedings of the National Academy of Sciences* 107 (26) (2010): 11733–11738.
- <sup>61</sup> Russell J. Skiba and Reece L. Peterson, “School Discipline at a Crossroads: From Zero Tolerance to Early Response,” *Exceptional Children* 66 (3) (2000): 335–346.
- <sup>62</sup> Brea L. Perry and Edward W. Morris, “Suspending Progress: Collateral Consequences of Exclusionary Punishment in Public Schools,” *American Sociological Review* 79 (6) (2014): 1067–1087.
- <sup>63</sup> Matthew P. Steinberg and Johanna Lacoë, “What Do We Know about School Discipline Reform?” *Education Next* 17 (1) (2017): 44–52.
- <sup>64</sup> Russell J. Skiba, Robert H. Horner, Choong-Geun Chung, et al., “Race Is Not Neutral: A National Investigation of African American and Latino Disproportionality in School Discipline,” *School Psychology Review* 40 (1) (2011): 85.
- <sup>65</sup> Council of State Governments Justice Center and Public Policy Research Institute, Texas A&M University, *Breaking Schools’ Rules: A Statewide Study of How School Discipline Relates to Students’ Success and Juvenile Justice Involvement* (New York: Council of State Governments Justice Center, 2011).
- <sup>66</sup> Matthew T. Theriot, “School Resource Officers and the Criminalization of Student Behavior,” *Journal of Criminal Justice* 37 (3) (2009): 280–287.
- <sup>67</sup> Kelly Welch and Allison Ann Payne, “Racial Threat and Punitive School Discipline,” *Social Problems* 57 (1) (2010): 25–48.
- <sup>68</sup> Jennie Rabinowitz, “Leaving Homeroom in Handcuffs: Why an Over-Reliance on Law Enforcement to Ensure School Safety is Detrimental to Children,” *Cardozo Public Law, Policy, and Ethics Journal* 4 (2006): 153–194.
- <sup>69</sup> Tamique J. Ridgard, Seth D. Laracy, George J. DuPaul, et al., “Trauma-Informed Care in Schools: A Social Justice Imperative,” *Communiqué* 44 (2) (2015): 1–12.
- <sup>70</sup> Golda S. Ginsburg, Kimberly D. Becker, Julie Newman Kingery, and Tanya Nichols, “Transporting CBT for Childhood Anxiety Disorders into Inner-City School-Based Mental Health Clinics,” *Cognitive and Behavioral Practice* 15 (2) (2008): 148–158.
- <sup>71</sup> Sandra M. Chafouleas, Austin H. Johnson, Stacy Overstreet, and Natascha M. Santos, “Toward a Blueprint for Trauma-Informed Service Delivery in Schools,” *School Mental Health* 8 (1) (2016): 144–162.
- <sup>72</sup> Humayun and Scott, “Evidence-Based Interventions for Violent Behavior in Children and Adolescents”; and Brittany N. Zakszeski, Nina E. Ventresco, and Aliza R. Jaffe, “Promoting Resilience through Trauma-Focused Practices: A Critical Review of School-Based Implementation,” *School Mental Health* 9 (4) (2017): 310–321.