

TRUTH IN LOVE

Ecology of Tornadoes and Community Violence

By Parris J. Baker
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Editor's note: Following is the third in a series of articles on violence in Erie, Pennsylvania

Somewhere in the middle of a massive thunderstorm there emerges a dark funnel of violently swirling air that defies and destroys everything in its path. The sight and sounds of a tornado can paradoxically strike terror and instill awe in the heart of most observers. Our fears and dread, I believe, are grounded in the sheer, raw power of the winds and our inability and powerlessness to control anything associated with the tornado. Our awe and fascination are stimulated or provoked when watching the tremendous force and intensity of the storm.

The most prudent and pragmatic thing anyone can do when a tornado is spotted is to find shelter and wait until the tornado has passed or its strength diminishes and dissipates. Sometimes, however, interest, ignorance, or arrogance will lead some of us to confront the tempest or chase the tornado. This is seldom a wise decision. Leave storm chasing to the professionals!

Far and away the United States has more tornadoes each year than any other country in the world. The National Oceanic and Atmospheric Administration (NOAA) reports over the last decade the United States averages between 1,200 and 1,300 tornadoes each year. Canada, ranked second in reported tornadoes, has an average between 80 and 100 each year and, England, ranked third, has an average of 34. Known as "Tornado Alley" in America, most tornadoes happen in the Midwest Great Plains and the Southeast regions. States that average the most

tornadoes are Texas (155), Kansas (96), Florida (66), Oklahoma (62), and Nebraska (62).[1]

Although we know where a tornado will most likely appear, the formation of a tornado is not completely understood. Research, however, has uncovered several important features favorable to convective storm development and contribute to tornado formation.[2] The primary reason for the high incidence and regularity of tornadoes, particularly in Tornado Alley, is geography and location. Without becoming overly technical, the geographic conditions necessary for tornado formation are the following: Warmer moist air from the Gulf of Mexico flows upward unimpeded across the Midwest and collides with the cooler and drier downward airstreams from the Rocky Mountains. These conditions foster frequent collisions of warm and cold air, hence the heightened frequency of storms and tornadoes. We know that more tornadoes occur between April and June than other months and are more likely to happen between 4 and 9 p.m. The probability of tornado formation increases with higher temperatures, generally above 75 degrees F.

The characteristics of community violence are very similar to the traits of tornadoes. Although we have researched communities with a higher prevalence of violent crimes, researchers are limited in their complete understanding of the problem. Throughout the decade of the 1980s, the Centers for Disease Control and Prevention (CDC) implemented ongoing epidemiological approaches to address community violence. During this period, community violence, once considered primarily a law enforcement issue, was now viewed as a significant national public health problem.

In 1980, the Department of Health and Human Services released an influential report, Promoting Health/Preventing Disease: Objectives for the Nation,[3] that identified violence prevention objectives nationwide. The causes for concern were related primarily to increased numbers of homicides and suicides and other violent crimes. The U.S. Department of Justice, Federal Bureau of Investigation in 2019 defined in their Uniform Crime Reporting four categories of violent crime: (1) murder and nonnegligent manslaughter, (2) rape, (3) robbery, and (4) aggravated assault.

According to 2018 Department of Justice, FBI Crime in the United States report, more homicides occur in the months of May through August with June being the deadliest month. Sunday ironically, is the day of the week when one is most likely to be murdered and Monday is the least likely day. Juvenile crime occurs more often (37 percent) between noon and 5 p.m.[4] Adult violent crimes are more likely to happen in the evening, between 6 and 11 p.m. States with the highest homicide rates per 100,000 for 2019[5] are: (1) Louisiana (15.8), (2) Missouri (11.8), (3) Mississippi (10.6), (4) Arkansas (10.6), and (5) South Carolina (10.5).

The states with the greatest number of homicides are California (2,203), Texas (1,931), Florida (1,290), Illinois (1,151), and Pennsylvania (1,009).

Analogous to tornadoes, violent crime is highly correlated to geography, location, and certain features that contribute to increased frequency. Previous research using various ecological theories reported that violent crime does not occur randomly but may be correlated with identifiable neighborhood characteristics. Community characteristics posited to be exogenous for higher prevalence rates of crime were socially disorganization, poverty, greater racial and ethnic heterogeneity, and relentless residential transience (Shaw & McKay, 1942; Kubrin, 2009).

Although no community or neighborhood is exempt from violence, larger, more urban municipalities seem particularly vulnerable and at greater risk for episodes of violence (Sampson & Raudenbush, 2001). Social Disorganization Theory, defined as the inability of a community to realize common goals and solve chronic problems (Kubrin & Weitzer, 2003) posits that crime is aligned on a continuum of social organization. On one end of the continuum, socially organized communities that have high levels of community solidarity, cohesion, and integration, experience lower levels of violent crime. Conversely, socially disorganized communities that are absent or have lower levels of those traits have higher levels of reported crime (Kubrin, 2009).

Violence in America and specifically in geographic locations populated primarily with African Americans will require courage, commitment, and perseverance that moves beyond the well-meaning, well-intentioned acknowledgment of “black-on-black” crime and the litany of political promise, “If I am elected.” Transformative work requires more elected politicians to unite the polity, more pastors to lead by leaving their pulpits, and more parishioners to participate beyond lip-service.

In our collective efforts to reduce violent crime in segregated residential communities, picking up our piece of the puzzle requires personal courage to change. Change requires a personal confrontation with truth – a heart examination. An introspective heart examination always precedes personal heart transformation. For residents trapped in violent communities and for those who believe they are safe from violent communities, both community residents live on a continuum of fear and diminishing hope. The ubiquitous question persists, “What can I do to change the community?”

The most prudent and pragmatic thing anyone can do when community violence is spotted is to find shelter and wait until the violence has passed or its strength diminishes and dissipates. However, we cannot disappear! The death of hope begins in the fury and ferociousness of a perception that no one cares; cares about the community or the people who live there. This can never become true.

At the onset of each year, many Americans set ambitious and well-meaning New Year's resolutions: to lose weight, stop smoking, or exercise more, only to waver in their commitment and ultimately, suspend or totally abandon the pursuit of the goal until next year or until the next health crisis. More than 80 percent of people quit within 30 days and only 8 percent achieve their goals.[6] As Brother D so eloquently stated, "Safe communities begin with me! Nobody can be comfortable when children are dying, and senior citizens are afraid to leave their homes. We don't need another sizzle session. We can never give up!"

1. *Tornadoes (2013)*. National Oceanic and Atmospheric Administration. Retrieved [here](#)
2. *Tornadoes (2013)*. National Oceanic and Atmospheric Administration. Retrieved [here](#)
3. *Health Objectives for the Nation (1989)*. Center for Disease Control. Retrieved [here](#)
4. *Office of Juvenile Justice & Delinquency Prevention*. Retrieved [here](#).
5. [here](#)
6. *This Is The Month When New Year's Resolutions Fail—Here's How To Save Them (2020)*. *Forbes*. Retrieved [here](#)

References

1. Kubrin, C. E. (2009). Social disorganization theory: The, now, and I the future. In M. D. Krohn, A. J. Lizotte, & G. P. Hall (Eds.), *Handbook on crime and deviance* (pp. 225-236). New York: Springer Publisher.
2. Kubrin, C. E. & Weitzer, R. (2003). New directions in social disorganization theory. *Journal of Research in Crime and Delinquency*, 40, 374-402. doi: 10.1177/0022427803256238
3. Shaw, C. R., & McKay, H. D. (1942). *Juvenile delinquency and urban areas: A study of rates of delinquents in relation to differential characteristics of local communities in American cities*. Chicago: University of Chicago Press.
4. Sampson, R. J., & Raudenbush, S. W. (2001). *Disorder in urban neighborhoods: Does it lead to crime*. US Department of Justice, Office of Justice Programs, National Institute of Justice.

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