Chapter 4
School Rampage in International Perspective: The Salience of Cumulative Strain Theory

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Prior to the mid-1990s, social scientists who sought to understand mass murder tended to focus on episodes where numerous victims were killed during a single incident in workplaces, families, and public places like shopping malls and restaurants (see, for example, Dietz, 1986; Levin & Fox, 1985). During the mid and late 1990s, however, a string of multiple-victim shootings occurred at middle and high schools located in fairly obscure suburban and rural areas of the United States. As a result of such shootings in American schools, a growing number of specialists (Fox & Levin, 2011; Kimmel & Mahler, 2003; Newman, Fox, Roth, Mehta, & Harding, 2004; Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2004) turned their attention to the school rampage in search of an explanation for these perplexing events.

Roughly a decade after the 1990s spike in American middle and high school rampages, several American colleges and universities such as Virginia Polytechnic Institute and State University, Louisiana Technical College, and Northern Illinois University experienced massacres on their campuses (Fox & Savage, 2009). Rampage incidents, in particular the attack at Columbine High School in Littleton, Colorado, have had long-lasting and far-reaching effects upon the language and policy debates surrounding school crime and safety (Muschert & Madfis, 2012; Muschert & Peguero, 2010). While multiple-victim school attacks were not unprecedented in Europe before the highly publicized Columbine case (see for example, the 1925 school massacre

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in what is now Vilnius, Lithuania, the 1967 massacre at St. John's RC High School in Dundee, Scotland, the 1983 school massacre at the Freiherr-vom-Stein Gesamtschule in Eppstein, Germany, and the 1989 school shooting in Rauma, Finland), a "copycat effect" has emerged worldwide since the late 1990s.

Not unlike the adoption of American consumer products (e.g., Coca Cola, McDonalds, and KFC) and film and music popular culture, disaffected individuals in other lands have taken their inspiration for mass murder from highly publicized American incidents. In July 2011, Anders Breivik killed 77 people when he bombed central Oslo and then gunned down dozens of young people at a summer camp of the Labour Party's youth wing. Breivik's 1,500-page manifesto copied sections from the writings of American Unabomber Theodore Kaczinski, whose own manifesto led to his ultimate capture after 17 years of sending bombs through the mail to universities and airline executives (Hough, 2011).

Similarly, since the April 1999 Columbine massacre, school shooters within the United States and around the world have turned to this infamous American case for their inspiration to kill (Larkin, 2009). For example, in April 2002, 19-year-old Robert Steinhäuser shot to death 13 faculty members, two students, and one police officer at the Johann-Gutenberg-Gymnasium in Erfurt, Germany during final exams, before committing suicide. Upon searching the German killer's home computer, police later located newspaper articles about Harris and Klebold and the Columbine massacre (Bondü & Scheithauer, 2010). In September 2006, 25-year-old Kimveer Gill shot to death one student and injured another 19, before committing suicide, at Dawson College in Montreal, Canada. During a police search of Gill's home, police found a letter to his family praising the actions of Harris and Klebold. Gill was known to spend his idle hours logging onto a website called VampireFreaks.com, where he listed the internet-based video game "Super Columbine Massacre" as one of his favorites and displayed 50 photos of himself carrying a rifle and wearing a black trench coat and combat boots reminiscent of the outfit worn by the Columbine killers (Travers, 2006). Sebastian Bosse, who bombed and shot students and staff at his former school in Emsdetten, Germany, on November 20, 2006, praised Harris in his diary (Larkin, 2009). Two British teenagers obsessed with the Columbine massacre planned the bombing of their Manchester school for its 10 year anniversary (Carter, 2009).

4.1 Purpose and Method

In a previous publication (Levin & Madfis, 2009), we proposed a broad and sequential explanatory model of the factors frequently implicated in rampages committed by students in the United States. To provide relative uniformity of motivation, our analysis included only those perpetrators who were current or former students of the middle school, high school, or college that they targeted.

We sought to generalize not to all school shooting incidents, but, following Newman et al. (2004), only to school rampages: cases in which three or more people were killed or injured by gunfire on school property. Our criteria for selection, therefore, excluded the large number of school shooting cases with single victims (Hagan, Hirschfield, & Shedd, 2002), as well as double murders and assaults in which one particular individual is deliberately targeted but innocent bystanders are unintentionally harmed (e.g., in domestic or gang violence). Although we also excluded school slayings in which firearms were not used from the primary sample, we do examine rampage attacks utilizing knives, axes, bombs, and other weaponry as a useful basis for comparison.

Muschert (2007) pointed out the lack of studies (at least in the English language) that explore rampage violence outside of the United States, and this chapter seeks to help remedy that deficit. The literature on school rampage over the last decade has often emerged sporadically in diverse locations due to disciplinary boundaries and language barriers, and even specialists are not always aware of the case studies and empirical scholarship conducted elsewhere. It is our hope that this volume as a whole will address that problem. Our contribution to that effort explores the international salience of our cumulative strain model (Levin & Madfis, 2009), which was created via the inductive analysis of numerous American cases of school rampage. Here, we examine recent cases of rampage school shootings outside of the United States, applying the same selection criteria as our previous American study, in order to determine the extent to which our multi-stage explanatory model may be generalized internationally.

For this purpose, we gathered a sample of international school rampage incidents from various sources—including the Lexis-Nexis newspaper database and various internet sites which compile lists of school violence incidents—to compile as comprehensive a list as possible and to confirm the accuracy of data by drawing on multiple sources. We acknowledge that relying on newspaper accounts creates certain limitations. Duwe's study of how the American news media reports mass murder in the United States (2000), found that the most widely publicized mass murders were disproportionately likely to include large numbers of casualties, victims unknown to the offender, public locations, assault weapons, interracial offender–victim relationships, older offenders, and workplace violence. Hence, a list compiled from newspaper searches is likely to include a disproportionate number of cases that fit these descriptions. Unfortunately, there is no research investigating these biases in the school or international contexts. Although our sample was intentionally limited to multiple-casualty events using firearms in public locations, if Duwe's findings (2000) can be generalized to school rampages outside the United States, our sample might be biased toward cases where students targeted victims of different races or ethnicities, as well as from undue attention paid to rampage attacks with random victims as opposed to targeted attacks on specific individuals. In addition, language barriers forced us to utilize mainly English-language publications which could certainly impact the quality as well as quantity of our sample and data.

Via the aforementioned method, we examined the following 12 incidents, all of which met our selection standards and occurred since the April 1999 Columbine massacre (Table 4.1).[1]

4.2 The Model

Our model consists of five distinct stages, each of which is hypothesized as a necessary but not a sufficient condition for the school rampage to take place. Thus, none of these variables at any given stage is viewed, by itself, as causing a school rampage to occur. The term cumulative strain is used to emphasize the crucial point that these factors intersect and build upon one another in a cumulative fashion. Long-term frustrations (chronic strains) experienced early in life or in adolescence lead to social isolation, and the resultant lack of pro-social support systems (uncontrolled strain) in turn allows a short-term negative event (acute strain), be it real or imagined, to be particularly devastating. As such, the acute strain initiates a planning stage, wherein a mass killing is fantasized about as a masculine solution to regain lost feelings of control, and actions are taken to ensure the fantasy can become reality. The planning process concludes in a rampage attack facilitated by weapons that enable numerous casualties in schoolrooms and campuses, where students are closely packed together.

4.2.1 Stage 1: Chronic Strain

Social scientists have long asserted that strains, various life pressures and difficulties, may result in criminal behavior. In 1938, Robert K. Merton adapted Durkheim's anomie theory to argue that those who are structurally excluded from achieving the cultural goal of material success experience strain and may ultimately adapt to this disappointment with various forms of deviant and criminal behavior. Likewise, social psychologists have long argued that chronic frustration, a string of failures to achieve an individual's objectives, increases the likelihood of anger and aggressive behavior (Dollard, Doob, Miller, Mowrer, & Sears, 1939). In an early study, Palmer (1960) found that convicted murderers had suffered more important frustrations throughout childhood—physical defects, poor academic performance, few friends,

[1] Please note that we have not included offender suicides in the death count, something we suggest generally as a good operational practice. In the case of the Montreal rampage on September 13, 2006, Gill is listed as a former student, although he attacked Dawson College rather than his nearby alma mater, Vanier College, which he attended without graduating. A notepad police found in his car also indicated his intention to take his killing spree to other venues, including Vanier College (Who Was Kimveer, 2008). As the table indicates, very little data was available in English on the Veghal, Taiuva, Pak Phanang, and Patagones cases.

Table 4.1 International rampage shooting incidents

Date of rampage	Shooter's name and age	N killed/injured	Location and size of community	Bullied?	Isolated?	Former or current student?	Staff targeted w/ students?
December 7, 1999	D. Ali, 17	0/5	Veghel, Netherlands (small community)	Unknown	Unknown	Current	Students only
April 26, 2002	R. Steinhäuser, 19	16/1 + suicide	Erfurt, Germany (large urban)	No	Yes	Former	Staff and students
October 21, 2002	H. Y. Xiang, 36	2/5	Melbourne, Australia (large urban)	No	Yes	Current	Staff and students
January 27, 2003	E. A. Freitas, 18	0/8 + suicide	Taiuva, Brazil (small community)	Yes	Unknown	Former	Staff and students
June 6, 2003	A. Boonkwan, 17	2/4	Pak Phanang, Thailand (small community)	Unknown	Unknown	Current	Students only
September 28, 2004	R. Solich, 15	3/5	Patagones, Argentina (small community)	Unknown	Unknown	Current	Students only
September 13, 2006	K. S. Gill, 25	1/19 + suicide	Montreal, Canada (large urban)	Yes	Yes	Former	Students only
November 20, 2006	S. Bosse, 18	0/5 + suicide	Emsdetten, Germany (small community)	Yes	Yes	Former	Staff and students
November 7, 2007	P. Auvinen, 18	8/0 + suicide	Jokela, Finland (small community)	Yes	Yes	Current	Staff and students

(continued)

Table 4.1 (continued)

Date of rampage	Shooter's name and age	N killed/injured	Location and size of community	Bullied?	Isolated?	Former or current student?	Staff targeted w/ students?
September 23, 2008	M. J. Saari, 22	9/0 + suicide	Kauhajoki, Finland (small community)	Yes	No	Current	Students only
March 11, 2009	T. Kretschmer, 17	15/9 + suicide	Winnenden, Germany (small community)	Yes	Yes	Former	Staff and students
April 7, 2011	W. M. Oliveira, 24	12/20 + suicide	Rio de Janeiro, Brazil (large urban)	Yes	Yes	Former	Students only

and chronic illnesses—than brothers who had never been convicted of committing a homicide.

Moving the concept of strain beyond Merton's social structural and class concerns (1938, 1968) and Dollard and colleagues' notion of failed objectives (1939), Agnew's General Strain Theory (1992) broadened the concept of strain to include a range of negative experiences or disappointing events in social relationships at home, school or work, or in the neighborhood. In Agnew's view, strain is a range of difficulties which lead to anger, frustration, disappointment, depression, fear, and ultimately, crime.[2] When strain intensifies and persists over a lengthy period of time, it becomes chronic.

Not unlike those who commit family annihilations and workplace mass murders, chronic strain seems to be a persistent theme in the life experiences of students who kill their schoolmates and teachers en masse (see, for example, Fox & Levin, 2011; Newman et al., 2004; Vossekuil et al., 2004). For school shooters, stressful and frustrating conditions often characterize their home life, their school relationships, or both. Research has confirmed the role played by strain and frustration in the family and at school in the development of delinquent behavior more generally (Agnew, Brezina, Wright, & Cullin, 2002; Agnew & White, 1992). Further, Leary, Kowalski, Smith, & Phillips (2003) found chronic rejection of the shooters in at least 13 of the 15 American school shooting cases they examined.

Among the sources of strain identified by Agnew (1992) are the failure to achieve positively valued goals and the disjunction of expectations and achievements. Both of these sources are similar to, though broader in scope than, Merton's analysis of the disparity between cultural goals and structural means (1938, 1968). Middle and high school students often judge their success and value in life neither by grade-point averages (as Merton's singular material goal model would suggest) nor by family relationships, but rather in terms of their popularity with peers. American youths who have gone on a rampage at their middle and high schools include both academic successes and failures (Hermann & Finn, 2002; Vossekuil et al., 2004), but almost all of them had been physically bullied, teased, humiliated, or ignored by their fellow students on a regular basis (Kimmel & Mahler, 2003; Larkin, 2007; Newman et al., 2004; Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002). By and large, persistent bullying was the main source of chronic strain in American cases.

As in the American context, the majority of school shootings outside of the United States (at least 7 of the 12 incidents we studied) involved long-term bullying as an expression of the killer's chronic strain and longstanding desire to get even. Eighteen-year-old Edmar Freitas, who committed suicide after shooting and

[2] Langman (2009a, b) argues that school rampage killers may be typologized into traumatized, psychotic, and psychopathic categories. While our notion of strain fits most closely with that of traumatized rampage killers, we readily acknowledge the causal role that psychosis plays in some of these cases, though other mental health concerns such as depression and suicidal ideation are far more common. We do, however, dispute the notion that psychopathy plays a vital role in many cases, for unlike most serial killers, who lack empathy for others and revel in identifying as predators, the majority of rampage school shooters and other mass murderers are far more likely to view themselves as fundamentally moral victims of unjust treatment (Fox & Levin, 2011).

injuring eight people, mostly students, at his former school, the Colonel Benedito Ortiz High School in Taiuva, Brazil, in January 2003, for example, had been routinely teased and humiliated by his classmates since the age of 7 for being overweight (Morena, 2011). Chronic strain was similarly implicated in the September 2006 case of Kimveer Gill who shot to death one student and injured another 19 at Dawson College in Montreal, Canada. His motive was unclear until police located his online journal where he recorded how he had been bullied and harassed by the "jocks and preps" in his school (Travers, 2006; Who Was Kimveer, 2008). Eighteen-year-old Sebastian Bosse injured 27 people at his former school in November 2006 because he wanted revenge in what his suicide note referred to as "a revolution of the dispossessed" against the students who tormented and humiliated him. At one point, his tormenters went so far as to press a red-hot key against his hand (Böckler, Seeger, & Heitmeyer, 2010, p. 281). Similarly, Pekka-Eric Auvinen shot to death the principal, a school nurse, six students, and himself at his high school in Jokela, Finland, in November 2007 after being frequently bullied since fourth grade (Kiilakoski & Oksanen, 2011). In September 2008, Matti Juhani Saari entered the Kauhajoki School of Hospitality in Kauhajoki, Finland, where he massacred nine students and then took his own life. For years, Saari reportedly had been a victim of bullying and humiliation by his classmates and later by his military peers. His fellow high school students regarded him as weird and unsociable, targeted him for scornful name-calling and hurtful pranks, and even assaulted and spat on him; his torment continued after graduation as other recruits urinated on his bed during his military service (Kiilakoski & Oksanen). In March 2009, 17-year-old Tim Kretschmer killed 15, including nine students and three teachers at his former high school in Winnenden, Germany. Kretschmer had long been mocked by other students (German school, 2009; Rayner & Bingham, 2009). In April, 2011, 23-year-old Wellington Menezes de Oliveira shot to death 12 students at his alma mater, the Tasso da Silveira School in Rio de Janeiro, Brazil. He had been constantly harassed and bullied by other students in part because of a physical disability. In a video recorded 2 days prior to his rampage, he suggested that he sought revenge for all "who have been humiliated, attacked, and disrespected for being different" (Rio school, 2011).

Bullying was not, however, the only form of long-term frustration experienced by school rampage shooters in the international sample. Chronic strain also took the form of persistent academic failure. For example, Robert Steinhäuser's school shooting in Erfurt, Germany on April 26, 2002, was less akin to those of his bullied American student counterparts and more like many workplace avengers who feel as if they have been unjustly fired or overlooked for accomplishments and promotions and decide to get even through the barrel of a firearm (Fox & Levin, 1994a). In this way, the Erfurt incident has much in common with an attack at the University of Iowa in October 1991 where Gang Lu, a graduate student in physics, was so outraged at being denied an important award for his Ph.D. research that he killed three faculty members on his dissertation committee and the graduate student who had won the prize for which he had unsuccessfully competed (Chen, 1995). Robert Steinhäuser had a longstanding reputation as a lazy and under-achieving student who had been

repeatedly disciplined for truancy and misbehavior. This would explain why his primary targets were teachers rather than peers. According to students, Steinhäuser aimed only at teachers, although two students were killed by shots fired through a locked door. During a period of high unemployment and few job prospects, Steinhäuser believed he had been robbed of his only opportunity to be accepted into a college and pursue a viable career (Gasser, Creutzfeldt, Naher, Rainer, & Wickler, 2004). He apparently blamed the faculty for his failings and decided to exact violent revenge against those he held responsible. Similarly, Huan Yun Xiang, who killed two students and injured two more and his professor at Monash University in October of 2002, was "constantly frustrated in class with students and lecturers because he found it difficult to communicate . . . [as] his command of the English language was limited" (Tozer, 2002). As a Chinese student in Australia, failing the course might have meant that Xiang's last 4 years of education were wasted as he could have subsequently been deported or forced to take unskilled factory work (Rees, 2002). Thus, although chronic bullying was not a factor in either of these cases, Steinhäuser's frequent reprimands (and ultimate expulsion from the school) and Xiang's constant trouble communicating at school (and the required oral exam which later precipitated his rampage), certainly constituted significant strains.

4.2.2 Stage 2: Uncontrolled Strain

The strains of everyday life are, for the majority of people, contained by the presence of conventional and pro-social relationships. From the point of view of middle-class society (from which a majority of American school shooters have come), most young people are embedded in a protective network with mainstream support systems in place. If they cannot find acceptance at school, they locate it in the family. Or, perhaps, they move to another set of peers outside the realm of their school. Some students, however, either never develop any meaningful social relationships at all (such as Virginia Tech shooter Seung-Hui Cho) or they turn to marginalized students who support and encourage their violent anti-social feelings and beliefs (such as the killer duos responsible for the massacres at Columbine, CO, and Jonesboro, AR).

In his social control theory, Hirschi (1969) argued that commitment to conventional institutions and bonding relationships with conventional people immunize individuals from perpetrating criminal acts including violence. Such well-connected individuals have a stake in conformity to mainstream norms and are reluctant to jeopardize that by engaging in criminal behavior. Those who lack such conventional bonds, by contrast, may feel isolated and/or marginalized and are accordingly less restricted to conformist behavior. Elliott, Ageton, & Cantor (1979) modified Hirschi's control theory, proposing that delinquency is most likely when there are weak bonds to conventional groups and strong bonds to deviant groups.

Adults who go on a rampage at work or in the family are almost always socially isolated and lacking in both conventional and deviant social bonds (Fox & Levin 2011).

By contrast, students or former students who shoot their schoolmates may similarly lack a large mainstream social network, but they are more likely to locate sources of support and companionship among peers who experience many of the same grievances they have. While Vossekuil et al. (2004, p. 20) determined that 34% of the American school shooters they examined were characterized by others or themselves as "loners," another 27% of their sample of shooters socialized with students who were disliked by their peers or were viewed as being part of a "fringe" group such as Columbine's infamous "Trenchcoat Mafia."[3] Further, they found that 44% of shooters were dared or encouraged by their peers to engage in the attacks (Vossekuil et al., 2002, p. 26).

While strain may persist for decades and family strains often start early in life, conventional social bonds begin to break down later. According to Agnew et al. (2002), adolescents are lower in social control than either adults or children: they tend to be less attached to their parents, less committed to being academically successful, and more likely to have friends who get into trouble. The developmental phase of adolescence is often marked by a profound desire for independence and rebellion. The peer group becomes almost everything. Supportive parents may no longer be appreciated by an adolescent who is rejected by his conventional peers and has no friends in the popular crowd. Young people may similarly have trouble making the transition into adulthood, where they are now required to fend for themselves. Not every young person is capable of moving easily from stage to stage. This is especially true for young people who have experienced persistent difficulties throughout childhood and adolescence.

Many American school shooters resided in small tight-knit towns where residents are in close contact with one another (Kimmel & Mahler, 2003; Newman et al., 2004). For individuals who can conform to dominant cultural norms and are accordingly accepted by other residents, it is very comfortable to live in such a locale. However, for students who are rejected or ignored, there are few alternative options for peer acceptance. A strong sense of community often entails less tolerance of differences (Kimmel & Mahler) and may leave students feeling trapped in the only game in town (Levin, 2008; Newman et al., 2004). As their resentment grows to an intolerable extent, they may have only two choices—either to retreat into a world of isolation or to join together with other students who are similarly rejected or ignored.

Much like their American counterparts, most of the international school rampages (8 out of the 12 incidents) occurred in small towns or villages: Veghel, the Netherlands (population 37,000); Taiuva, Brazil (5,000); Pak Phanang, Thailand

[3] We do not intend to suggest that being different, befriending people who are out of the mainstream, or participating in youth subcultures (which are, more frequently than not, pro-social cultural endeavors) usually facilitates a move to violence. The fact that the name "Trenchcoat Mafia" was initially created not by its members but rather by other students at Columbine High as a derogatory term for the friendship clique (Larkin, 2007) indicates just how potentially dangerous it can be for school administrators and teachers to utilize outsider status as a warning sign for murderous behavior. Rather than reduce a potential threat, this approach can doubly victimize already marginalized students through negative attention from school authorities.

(13,000); Patagones, Argentina (18,000); Emsdetten, Germany (36,000); Jokela, Finland (6,000); Kauhajoki, Finland (14,000); and Winnenden, Germany (28,000). That said, there are also a few large cities represented among the shootings outside of the United States—in Erfurt, Germany; Melbourne, Australia; Montreal, Canada; and Rio de Janeiro, Brazil. Both within and outside of the United States, there may have been a copycat factor where initial cases of school rampages in small communities encouraged imitation by disaffected young people in other small communities rather than in large or medium-sized cities (see Agnew, 2004 on how specific forms of violence can often be understood as resulting from the social context in which strains are perceived and then avenged). Being ignored or rejected by peers in a small tight-knit community may be more significant for students who lack alternative social outlets beyond the school environment. By contrast, large cities are characterized by a greater number of options, increasing the likelihood that a student who is bullied by members of one group may find acceptance among other groups (Newman et al., 2004).

Uncontrolled strain can be identified in most incidents internationally, either through accounts by the shooters themselves or via the perceptions of their friends, family, and acquaintances. Erfurt's Robert Steinhäuser was characterized by his peers as a shy loner who did not get along well at home and had a reputation as a discipline problem at school. Even Steinhäuser's parents were unaware that their son had been expelled (Mendoza, 2002). Monash University shooter Huan Yun Xiang was characterized by students and teachers as "a loner who always sat somewhat apart" (Rees, 2002). In the last few months before Dawson College shooter Kimveer Gill killed one young woman, injured another 20 people, and killed himself, he cut off all contact with friends (Who Was Kimveer Gill, 2008), and several neighbors depicted his transformation into a solitary lifestyle as fairly recent (Blog Paints Chilling, 2006). The Emsdetten shooter, Sebastian Bosse, described as a "loner who spent all day playing computer games," had no friends at his school, where he noted that "the only thing I learned intensively . . . was that I'm a loser" (18-year-old Gunman, 2006; Juttner, 2006). Similarly, classmates who were familiar with Auvinen, one of the two Finnish rampage killers, described him as a loner and an outcast who had recently withdrawn completely from social relations (Larkin, 2010). Friends described Tim Kretschmer, the Winnenden rampage killer, as a lonely and quiet young man who felt rejected by society and ignored by his teachers, and much like many of the aforementioned cases, ultimately withdrew from his peers before the massacre (Davies, 2009). The shooter in Rio de Janeiro, Brazil, Menezes de Oliveira, had five siblings but lived alone, had no friends, and avoided contact with his former schoolmates (Raposa, 2011). Saari, the second Finnish shooter seems to have differed in this regard. According to one of his former classmates, Saari was "happy, a social guy [who] got along with people well and was not lonely" (Cser, 2008). However, he did attend nine different schools and moved constantly as a child, and, while his mother stated that he had been "lively during his first years," she described him as increasingly "shy, silent, and withdrawn" towards the end of his life (Kiilakoski & Oksanen, 2011, p. 33). Even if Saari cannot be classified as a friendless loner, the significant factor may be the encouragement and

support for violence that Saari received from his friends in the online social networking world. Much like his fellow Finnish shooter Auvinen, Saari spent a great deal of his time posting violent videos on YouTube and interacting with peers on discussion boards preoccupied with Columbine and other school shootings (Kiilakoski & Oksanen). It is notable, however, that all of the 12 cases under investigation in this study were committed by lone individuals. Unlike the killer duos of Westside Middle School in Arkansas and Columbine High School in Colorado and the numerous prevented rampage incidents involving multiple student plotters in the United States (Madfis, 2012), school rampage outside of the United States has been a fairly solitary pursuit.

Numerous young individuals who suffer strain over a long period of time come to be isolated from conventional sources of encouragement and support, yet still live long law-abiding lives. Many move beyond the isolation and rebellion of adolescence and eventually increase their social bonds (attachments, commitments, involvements, and beliefs) to conventional social institutions. In the third stage, however, disaster strikes (or at least, is perceived to strike), and the chronically strained and uncontrolled individual moves one step closer to multiple murder.

4.2.3 Stage 3: Acute Strain

In the vast majority of cases of all forms of mass murder, there is evidence of acute strain, a loss perceived as catastrophic in the mind of the killer that serves as a catalyst or precipitant. The chronic/acute distinction is akin to that found in medical nomenclature between chronic and acute illness. While chronic illness refers to a persistent and long-standing medical condition, acute symptoms develop rapidly and have a substantially shorter lifespan. Likewise, whereas chronic strains are persistent and long-term, acute strains are short-term but particularly troubling situations or events that seem catastrophic to an already beleaguered, frustrated, and isolated individual who has lost the ability to cope with adversity.

The catalyst for school shooters is most often a humiliating loss of face, a rejection by a girlfriend, a loss of academic standing, an eviction from a community of peers, or even a major illness (Madfis & Arford 2008; Vossekuil et al., 2004). American middle and high school students who committed rampages often suffered some episode involving peers or romantic interests that left them no longer able to cope with existing chronic strains. For example, before his rampage at Pearl High

[4] Additional acute strains seemed to be present in the Veghal and Pak Phangang incidents. However, without additional background data, the exact circumstances (and presence of various additional factors) are difficult to discern. The school shooter in Veghel, the Netherlands (Ali D.) was reportedly attempting to avenge the honor of his sister who had been involved in a failed relationship with another student at the school. Anucha Boonkwan, a student at Pak Phangang high school outside of Bangkok, Thailand, opened fire on fellow students, killing two and injuring another four, while they lined up in the morning to sing the national anthem. A day earlier, Boonkwan had suffered a humiliating loss of face in a fistfight with one of his classmates.

School in Mississippi, Luke Woodham was dumped by his girlfriend, an event he described in his journal as destroying him (Mendoza, 2002).

Similar romantic failures are found in international cases of school rampage.[4] For example, Pekka-Eric Auvinen was apparently rejected by his girlfriend shortly before he committed the massacre in Jokela (Stenger, 2007). Tim Kretschmer, who targeted students at his former high school in Winnenden, Germany, felt rejected by the girls in his class, and was supposedly snubbed shortly before the massacre by a girl he had been particularly infatuated with, all which together may explain why most of his victims were females (Rayner & Bingham, 2009).

In addition to negative experiences of romantic rejection, occupational and school failures are also common sources of acute strain for rampage killers. An example of the former, Matti Saari was expelled from the military for firing a weapon during a training session before he killed nine students at the Kauhajoki School of Hospitality in Finland (Larkin, 2010). College students who open fire on American campuses are likely to have suffered an acute strain of an academic rather than social nature (Fox & Savage, 2009), and numerous incidents at international campuses match this pattern. For example, the Monash University shooter Huan Yun Xiang shot students in a classroom on the morning when he was scheduled to take an oral final exam which his poor English language abilities made him destined to fail and thus likely to be deported (Rees, 2002). Montreal's Dawson College killer, Kimveer Gill, failed to graduate from junior college. In his profile on the VampireFreaks.com website, he wrote, "Work sucks . . . School sucks . . . Life sucks. What else can I say?" (Montreal Gunman, 2006).

In many international cases, high school shooters were similarly motivated to act after failing to succeed academically or professionally. Months prior to his rampage in Erfurt, Robert Steinhäuser had been expelled from school for forging a medical excuse for his truancy. As a result, he forfeited any opportunity to take his final examinations, and was left with absolutely no school qualifications and significantly diminished career opportunities. It was no coincidence that Steinhäuser launched his attack while his classmates were taking the math portion of this very exam (Mendoza, 2002). Likewise, in August 2010, only a few months prior to his attack, Rio de Janeiro school shooter Oliveria was fired from his job in a food company as a result of poor work performance (Raposa, 2011).

4.2.4 Stage 4: The Planning Stage

Acute losses prove catastrophic in part due to the lack of a positive and supportive environment and have a cumulative effect due to long-term frustration and chronic strain. No longer able to cope and feeling as if there is nothing in life left to lose, the potential shooter is motivated to get even and show the world, even if only for a few minutes of horrifying bloodshed, that he cannot always be ignored and diminished. After this point, the killer's mind is made up to commit a massacre, and he must first spend some time planning the event to go out, literally and figuratively, with a "bang." Subsequent strains and even subsequent events, such as other rampage

attacks, may change the timetable and logistics of the plan (and this is the manner in which the copycat effect must be understood: not as a causal factor, but as one determinant influencing choice of timing and method). However, there almost always seems to be one singular acute episode which serves as a last straw for the killers who finally decide to commit mass murder as a power-asserting albeit fatalistic way out.

A mass murder is not a simple act to perpetrate. For the killers, a massacre constitutes the final power-asserting moment of a disastrous and failed existence, so it is clearly in their interest to have the event well planned and achievable. This planning is an involved and often lengthy process. According to Vossekuil et al. (2004), most school shooters create a plan at least 2 days before initiating their attack. Yet many of them plan not for days but for weeks or months beforehand. For example, Eric Harris and Dylan Klebold spent over a year preparing their attack (Larkin, 2007).

The common misconception portrays the mass killer as a madman who suddenly "goes berserk" or "runs amok" and kills a large number of people with hardly any particular rationale, trigger, or objective. These slang expressions fail to accurately describe the vast majority of mass murders committed by either adolescents or adults. Spontaneity and randomness may be appropriate descriptors for homicidal maniacs who genuinely suffer from psychotic delusions and hallucinations. However, such explanations are inappropriate in any understanding of the deeper psychological and sociological motivations of most modern-day mass killers. It is clear that the majority of massacres involve deliberate planning and rational thought (Fox & Levin, 1994b; Newman et al., 2004; Vossekuil et al., 2004), and only a small minority of mass killers are psychotic (Holmes & Holmes, 2001) or diagnosed with serious mental health or behavior disorders (Vossekuil et al., 2004).

This leads to a troubling but inevitable conclusion. If mass murderers are rational actors and not hallucinating maniacs, then a violent massacre must in some way provide a "rational" solution. In fact, for school shooters (and likely other mass killers as well), the massacre serves to solve their most pressing problems of damaged personal identity and tarnished self-worth.

Planning was well documented in most international school rampages. Prior to his attack, Robert Steinhäuser was characterized by his peers as someone who had always tried to be at the center of attention. He wanted everyone to know his name and to be famous. After his expulsion from school, Steinhäuser spent at least a month stockpiling weapons and ammunition and making the necessary plans to maximize his body count (Gasser et al., 2004; Mendoza, 2002). Edmar Freitas planned his assault and suicide in Freitas, Brazil, for at least 2 months (Dreyer, 2003). In Montreal, Gill posted dozens of photos on his website depicting himself as a dangerous gun-toting young man. Security cameras showed Gill scoping out his killing venue 1 month before his rampage took place. At approximately the same time, he was training at a shooting club in order to secure his firearms permit (College shooter, 2006). Sebestian Bosse of Emsdetten, Germany, created an elaborate website in preparation for his attack at his former school (Böckler et al., 2010). Finland's Pekka-Eric Auvinen, who ended his killing spree by committing suicide, left behind a media package including a manifesto and a home-made video entitled

"Jokela High School Massacre—11/7/2007" showing him firing a handgun. He had planned the attack for more than 7 months and received his gun license 3 weeks before his shooting spree (Ministry of Justice, Finland, 2009; Police: Gunman Acted, 2008). In the weeks prior to his rampage, Matti Saari posted several videos on YouTube under the username "Wumpscut86," showing him firing a handgun at a local shooting range. The 22-year-old killer left a note saying that he had planned his rampage for years. An acquaintance of Saari said that around 18 months previously he had sent him a message saying that he intended to carry out a school shooting (Friend says, 2009). Albertville Technical High School killer Tim Kretschmer announced his intention to go on a rampage in a number of chat rooms and posted his plans on the internet a day before going on his killing spree. Three weeks before the massacre, Kretschmer wrote a letter to his parents, explaining that he was deeply troubled and simply could not continue to live (Yeoman and Charter, 2009). Rio killer Wellington Menezes de Oliveira planned his attack for months in advance, scoping out his former school on several occasions, one of them 3 days before his attack, when he shaved his beard in the hopes of not being recognized (Brazilian school shooter, 2011). On the day of his rampage, Oliveira arrived at school carrying a backpack and told school staff that he had been invited to give a speech to students, before opening fire with two handguns (Cavanagh, 2011).

As Kimmel and Mahler (2003) and Newman et al. (2004) have previously noted in the American context, the utility of a school massacre as a masculine gender performance is paramount. It should come as no surprise, then, that all of the international rampage shootings explored in this study were committed by males. When we consider the manner in which much of Western culture equates violence with masculinity, we can begin to comprehend the act as a deliberate plan designed to control the image others have of the killer (as a powerful and masculine individual) in the socially approved manner for men, with violence. These continually humiliated, ignored, and emasculated boys and men feel that one last catastrophic show of force, homicidal violence on a massive scale, will restore lost feelings of masculinity, pride, power, and possibly result in the added bonus of achieving international fame.

After the final cumulative loss, the killer has set his mind on the vision of massive, terrifying human destruction as a way to gain a personal sense of pride, accomplishment, and masculine force. A period of planning must take place, during which the prospective killer locates an appropriate weapon, prepares the logistics of the attack, selects appropriate targets, and so on. In order for the attack to take place successfully, it must not only be meticulously planned; various facilitating factors need to be in place to transform a deadly dream into a terrifying reality.

4.2.5 Stage 5: Massacre at School

Of course, most bullied and rejected youths never commit a massacre, even if they suffer from chronic and acute strain and distance themselves from mainstream sources of social control. It is similarly true that many severely troubled young

people who have seriously considered committing a mass murder and even planned a deadly attack do not go through with it. Additionally, some people who desire to be mass killers initiate attempts yet fail due to a critical lack of facilitating factors, such as the training in or access to firearms or explosives.

According to routine activity theory (Cohen & Felson, 1979; Felson, 1994), predatory crimes occur only when suitable targets are available, effective guardians are absent, and motivated offenders are present. Multiple-victim shootings at schools contain all three of Cohen and Felson's foreground-level factors: multiple students collectively despised by the shooter(s) and congregated closely together in classrooms or public places; an absence of armed officers in the immediate area (few school shootings are ended through the intervention of law enforcement); and a student who is dedicated to killing his schoolmates.

To explain, also in Felson's foreground-level manner, why school massacres occur and take multiple lives, one must look to the presence of a lethal weapon of mass devastation, most frequently a firearm. Consistent with the routine activity perspective, most of the American school shooters conveniently acquired the gun(s) used in their rampage from their own home or the home of a close relative or friend (Fox Levin, & Quinet, 2011; Vossekuil et al., 2004). The absence of a semi-automatic firearm, conversely, reduces the likelihood of a school shooting turning into mass murder. On September 17, 2009, for example, a 19-year-old former student wounded nine people at a school in Ansbach, Germany, but, as he utilized petrol bombs and an ax, none of his victims died (Firebomb Attack, 2009).

In addition, routine activity theory helps to explain the selection of victims in school shootings. Few episodes of school violence result in any death at all, let alone a large body count, and the vast majority of school homicides have a single victim (Hagan et al., 2002). For a massacre to occur, a number of suitable targets must be available. As previously mentioned, youths who target multiple victims may be motivated to kill en masse in order to set a new record or achieve infamy. The massacre is, in some cases, meant to be an act of revenge, but it may also be designed to send a message that the shooter is powerful, important, and not to be ignored. This morbid statement is only as potent as the action is deadly and so a massacre sends the strongest message. Routine activity theory helps explain why the school or college serves as the ideal site for a massacre: crowded classrooms and bustling campuses pack unsuspecting victims (not to mention bitter rivals and despised authority figures) closely together.

At the scene of their attacks, those international rampage killers whose primary targets were students or teachers immediately headed for classrooms where large numbers of their potential victims were located. For example, Gill began by opening fire on groups of students outside the school buildings and quickly moved to the atrium near the cafeteria, where he could maximize the carnage (Montreal Gunman, 2006). Auvinen used a semi-automatic pistol to murder students mostly in the entrance hallway of the school, after which he walked around the school and killed the principal in the school yard (Ministry of Justice, Finland, 2009). Saari opened fire on 20 students taking an exam and then moved to another classroom containing large numbers of students (Finnish college, 2008). Kretschmer began his killing spree in two top-floor classrooms and a chemistry

laboratory. In contrast, Steinhäuser's rampage required more mobility. He launched his attack as his classmates were engaged in their final exams and ignored students while directing his assault only at the teachers who were scattered throughout the building (Mendoza, 2002).

In an earlier contribution (Levin & Madfis, 2009), we argued that the real enemies of Virginia Tech killer, Seung-Hui Cho, were possibly not at Virginia Tech, but in the middle and high schools where he had been humiliated on a daily basis by classmates who made fun of his flat affect, his extreme shyness, and his lack of fluency in English. We pointed out that it would have been difficult, if not impossible for Cho to have targeted his former classmates as they were now inaccessible as a group. On his campus, however, he was able to commit *multiple murder by proxy,* Virginia Tech students were in proximity and available in large numbers. They stood in for the many classmates who had victimized Cho during his formative school years. Such a way of thinking, wherein the more easily accessible school target stands as a symbol for a host of prior injustices, was explicitly expressed by Emsdetten's Sebastian Bosse in his suicide note:

> I want REVENGE! I've been thinking about how most of the students that humiliated me have already left the school. I have two things to say about that: 1. I wasn't only in one class, I went to the school as a whole. No way are the people at the school innocent! Nobody is! They've got the same program running in their heads as the earlier years! I am the virus that wants to destroy these programs, and where I start is totally irrelevant. 2. Most of my revenge will be directed against the teachers, because they are people who intervened in my life against my will and who helped to put me where I now stand: On the battlefield! Almost all these teachers are still at this damn school! (Böckler et al., 2010, p. 280).

For Bosse, his former school was not only a symbolic target; it was also a practical one where mass violence could actually be enacted in one final burst of vengeful devastation.

4.3 Prevention

Since the Columbine massacre in 1999, numerous short-sighted policies have been proposed and implemented in an effort to satiate the public and reduce the anxieties of teachers, students, and parents. The American response has largely been to increase punitive disciplinary measures, surveillance via cameras and resource police officers, and security through target-hardening practices such as metal detectors and limited entrances. It is important to emphasize that the average duration of a school shooting is less than 15 min (Vossekuil et al., 2004), so that reactive measures can ultimately accomplish little. From a routine activities perspective, increasing the number and effectiveness of capable guardians and engaging in target-hardening tactics to diminish their suitability and ease of access does nothing to diminish the third and most vital of Felson's factors—the motivation of offenders. To this end, the focus must also be on long-term prevention techniques to ensure that students do not develop a desire to engage in a school massacre in the first place.

Our analysis suggests that incidents of multiple-victim shootings aimed at students and teachers might be deterred early on by reducing the chronic strains experienced by students who are likely to turn violent. There are frequently important warning signs—bullying and lack of friendships—to identify students who have suffered prolonged frustration in school and/or at home and are in urgent need of assistance from supportive adults. The problem is that teachers, school psychologists, and counselors do not always react to *troubled* students until they become *troublesome* and are seen as a threat to others.

It often takes years of being teased, bullied, and/or neglected by peers before a student develops a plan to kill his classmates and teachers. By the time a young person has murderous intentions, it is usually too late to intervene. But years earlier, a sensitive teacher, a perceptive guidance counselor, or even a concerned parent might have made all the difference. If strains are counteracted early on, then the cumulative impact of isolation, catastrophic losses, and planning lose their efficacy in regard to producing a massacre.

Important skills for coping with strain may require effective guidance, counseling, or even medication. Millions of young people, regardless of their potential risks for violence, would benefit from intervention by parents, teachers, administrators, and school psychologists to prevent bullying and harassment. Fortunately, many principals and legislators in the United States, due in part to highly publicized student suicides and homicides, have recently enacted anti-bullying programs and policies. Many of them aim at changing the student culture rather than focusing on changing bullied students. Because almost all of the school shooters around the world have been males, an effective conflict resolution policy should promote more constructive images of masculinity.

In Stage 2, we saw that some angry students externalize the blame for their miseries. Students who go on a rampage are unlikely to take responsibility for their own actions, accept their marginal status among conventional peers, or adjust to the role of outsider. Some adolescents who never seriously consider violent vengeance may find sources of self-esteem beyond popularity. In response to peer humiliation, targeted students may resist and gain much needed self-esteem by developing competence in other valued areas of life such as scholarship, extra-curricular activities, athletics, music and art, or with family members.

Moreover, many students who suffer from strain over a lengthy period of time never experience a catastrophic loss and instead mature from middle to high school status, high school to college status, or into adulthood, where peer influence declines in significance. It is important to intervene in the lives of emotionally desperate students long before they can potentially suffer acute strain in the form of a catastrophic event. When such a calamitous occurrence does arise in their lives, they will then have the self-esteem and social support system in place to soften the blow.

Additionally, as our fourth stage clearly indicates, school massacres are by and large carefully planned for days, weeks, or months before they take place. Fortunately, many attackers also reveal some element of this plan to their friends or family members—communication which O'Toole (2000) refers to as "leakage." Vossekuil et al. (2004) found that 81% of their American sample revealed their homicidal plot to at

least one person, while 59% informed two or more people. These facts indicate a dire need for students to break the culture of silence, take threats seriously, and come forward with such crucial information. Due to the widespread publicity of certain school massacres, this change has already begun to take place. Many American shooting rampages since Columbine have been narrowly averted, because trusted young confidants revealed the dangerous intentions of their peers to the authorities (Butterfield, 2001; Daniels et al., 2007, 2009; Madfis, 2012), while the Berlin Leaking Project has been a vital source of German data on school threats and communications of impending violent acts (Bondü & Scheithauer, 2010).

Finally, students who lack access to and training in the use of particularly lethal weapons may injure but not kill many. Though it is much more common for a young student to attack a classmate in school with a knife, guns are the most common weapons used to commit multiple homicide. If parents, grandparents, or other adult relatives keep a firearm in the home, they must be absolutely certain that it is inaccessible to troubled children and teenagers. In at least two of the international incidents (Kretschmer and Boonkwan), rampage shooters secured a weapon from their father's collection.

In the aftermath of the many mass murders in the United States, there have been calls to arm students, teachers, and faculty members, either as a means of deterring future offenders from making an attempt or with the mindset that an armed populace would be better equipped to stop a rampaging killer. In fact, nearly 20 American states considered new legislation to permit students and faculty to carry firearms on college campuses in the wake of the massacre in Tucson, Arizona, on January 8, 2011, in which 19 people were shot, including U.S. Representative Gabrielle Giffords (Gottesdiener, 2011). Thus, in the face of strong support for the second amendment to the American Constitution (the right to bear arms), little focus has been placed on reducing the availability of firearms. By contrast, the most common reaction to incidents outside of the United States has been attempts by gun control advocates to reduce teenagers' access to deadly weapons (though rampages have also precipitated other collective reactions, such as calls to prohibit violent video games in Germany after Bosse's attack and Finland's pouring resources into identifying and counseling disaffected young men after Saari's rampage). In most nations, however, shootings have been followed by broad media and political discussion of gun ownership issues related to school safety.

Following the Erfurt massacre, German gun laws were tightened, raising the minimum age of gun ownership from 18 to 21 (Loyn, 2009) and requiring extra medical and psychological testing for those under the age of 25 who sought to purchase guns (Massacre in Winnenden, 2009). The 2006 school shooting in Emsdetten led German lawmakers to amend the country's already strict gun laws, banning tasers, dummy guns, and several other weapons. Anyone assessed to be violent or with a criminal record was no longer eligible to purchase a firearm (Harding, 2009). Then, following Kretschmer's rampage, German politicians passed new legislation to create an electronic weapons registry along with random inspections in gun-owning homes (Bundestag approves, 2010). In Germany, applicants for a firearm license must be at least 21 years old, must pass criminal and psychiatric background checks,

and are required to have a legitimate reason for possessing a firearm (e.g., to hunt or protect themselves) (Alpers & Wilson, 2011; Harding, 2009).

After the shooting at Monash University, all Australian states passed new laws against handgun trafficking (Crabb, Costa, Munro, & Murphy, 2002), and the federal government placed new restrictions on handguns regarding maximum caliber, magazine capacity, and minimum barrel length (Hudson, 2003). In Canada, Gill's rampage inspired discussions about how to reduce access to automatic weapons and moves to tighten gun control generally. Yet the killer was entirely unknown to law enforcement and had no criminal record that would have prevented him from securing a firearm (Canada.com, 2007; Travers, 2006). The episode in Rio de Janeiro provoked nationwide discussions in Brazil about the safety of the country's schools, and the government called for a major disarmament program (Lemos, 2011).

Not unlike the situation in the United States, Finland's gun laws are relatively lax, permitting numerous residents who would be ineligible elsewhere to own and carry a firearm. Finland has the third highest rate of gun ownership in the world, behind only the United States and Yemen. Moreover, many Finns, even those most affected by recent school tragedies, oppose any recommendations by investigative committees to limit access to firearms. Hunting and recreational shooting are extremely popular. The majority of residents in both Jokela and Kauhajoki said they believed that the school shootings in their towns were isolated incidents that could not have been prevented (Oksanen, Nurmi, Rasanen, & Lindstrom, 2010).

After Auvinen's rampage, Finnish authorities pledged to raise the age for buying a gun from 15 to 18 but ultimately never did (Finland fears, 2008). Instead, the Ministry of Justice turned its attention to policies and programs designed to improve the lives of marginalized students. The *Report of the Investigation Committee* on the Jokela school shooting (Ministry of Justice, Finland, 2009) recommended, among other things, imposing measures to prevent bullying and harassment at an early stage of development, to increase control of internet websites that encourage violence, and to provide effective mental health services for troubled youngsters. Following the 2009 school rampage in Kauhajoki, the Investigation Committee (Ministry of Justice, Finland, 2010) recommended taking steps to limit the prevalence of semi-automatic firearms and raise the minimum age for possessing guns to 20 years. As in the Jokela report, the Kauhajoki Investigation Committee recommended developing mental health services for young people and changing school culture to reduce bullying. The new report also recommended more carefully distributing psychotropic medications to children and teenagers, coordinating efforts to reach students who suffer from mental illnesses, giving disgruntled students opportunities for expressing their grievances, and institutionalizing a comprehensive security plan for school emergencies.

The debate over how best to prevent and control school rampage shootings, and gun control as a solution in particular, remains hotly contested. Looking at recent incidents of school rampage in China, however, may prove quite useful as a basis for comparison. China's strict gun control laws were instrumental in determining the choice of weapon in a recent string of school rampages committed by outsiders who apparently had no direct connection to their victims, as either former or fellow stu-

dents. These legal restrictions on the possession of firearms may also have saved the lives of numerous Chinese citizens. In none of the eight horrific onslaughts committed from March 2010 through August 2011 was a firearm employed. Instead, the weapon was a knife, a box cutter, a hammer, or a cleaver. While causing unspeakable harm, the Chinese version of rampage seemed to result in far more injury than death, even though the victims were vulnerable children. In three cases, multiple victims lost their lives. On March 23, 2010, Zheng Minsheng stabbed to death eight children. Two months later, Wu Huanming killed seven kindergarteners and two adults with a cleaver. On August 4, 2010, Fang Jiantang killed three children and a teacher. Notwithstanding the death toll in these two latter cases, Huamming attacked another 11 children who were injured and survived, while Jiantang harmed, but did not kill, another 17 people. Likewise, though 16 students and a teacher were attacked by a knife-wielding assailant at a school in Leizhou, Guangdong Province, on August 28, 2010, all of the victims survived. Just a day later, 28 students, two teachers, and a security guard at a school in Taixumng, Jiangsu all survived after being stabbed repeatedly. Similar subsequent attacks with hammers and box cutters certainly caused great harm and injury, but they too were unsuccessful as mass murder attempts. While gun control laws do nothing to address the appetite for vengeance and carnage (and thus can be no substitute for preventative and ameliorative measures), they certainly make large-scale lethal violence more difficult to commit.

4.4 Conclusion and Future Research

School rampages within and outside of the United States since the Columbine massacre share much in common. In our international sample of shooters since the turn of the twenty-first century, many were influenced in terms of motive as well as modus operandi by the Columbine killers. In addition, they tended to be persistently bullied by other students or had experienced academic failures. Most were socially isolated, residing typically in small towns where a tight-knit sense of community mainly benefited students who had already found peer acceptance. Most took their own lives, after exacting a measure of revenge that was planned far in advance after one particularly devastating triggering event. Overall, the cumulative strain model initially devised to explain rampage in American schools seems to apply remarkably well to international incidents of multiple-victim school shootings.

At the same time, rampages committed outside of the United States did vary from what we have come to know about American school rampage. Half were former students and nearly all were in their late teens or early twenties, and thus, because of their adult status, were more able than the adolescents in American incidents to legally secure a firearm. Unlike their American counterparts, none operated in a homicidal partnership. Rampage school shooters outside of the United States were far more likely than those in America to explicitly target school staff rather than or along with their peers. In these international cases, this likely reflects the greater prevalence or significance of straining experiences relating to academic failures in place of or along-

side those pertaining to relational or peer-based stressors. It is also possible that this difference reflects a greater value placed upon peer group dynamics as part of identity formation in American culture, or even the fact that schools outside the United States often track their students into career trajectories from far younger ages in a manner which would make poor academic performance a considerably greater blow. Future research should seek to better understand the causes and significance of these differences. Further, scholars ought to more fully investigate international responses to school rampage and the manner in which anti-violence policy is often the result of particular cultural, political, and structural manifestations rather than the uncontested or inevitable solution to particular crises.

Ultimately, it is hoped that projects such as this edited volume will foster a more international and cross-disciplinary school shooting literature. That may mean additional theoretical work (such as Henry, 2009) which recognizes the need for school violence scholarship that utilizes "a complex combination of common social circumstances occurring on three levels: individual, community, and socio-cultural" (Muschert & Ragnedda, 2010, p. 347). It may also necessitate new emphasis on school homicide outside of the developed world, where language barriers and limited electronic media exacerbate the paucity of knowledge regarding shootings in South American and Asian countries. Such research is vital to improve the dialogue on school violence prevention so that scholars and practitioners from diverse fields and locales may be aware of what is going on elsewhere and be better alerted to the best practices with empirically confirmed results.

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