Introduction

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The current collection of essays represents a culmination of almost 3 years of intensive work and collaboration among the three editors of this volume, dedicated to compiling what we believe to be the current state of the art and science related to the study of violence and aggression. Rather than providing a preview and map of the volume, we find it more pertinent to provide in this introduction some history about the process leading up to the planning and completion of this book. In trying to develop this edited volume, it became clear that distinct expertise was required to identify interdisciplinary streams of scholarship that focused on the etiology, development, and prevention of violence and violent behaviors. We hope the chapters in this volume provide such an overview and reflect the most current thinking and research about violence.

In early conversations at Kent State University, where Dan Flannery is the Director of the Institute for the Study and Prevention of Violence, we began to discuss how we might develop the volume. One early challenge was how to achieve the provision of substantial interdisciplinary breadth, which we agreed included behavior genetics, brain imaging, comparative animal studies, criminal justice, criminology, human development, prevention sciences, and psychopharmacology. We also wanted to include perspectives from public health and sociology, as well as reviews of state-of-the-art methods that can be profitably applied to the study of violent and aggressive behaviors.

Ultimately, we decided to focus the handbook primarily on violence and violent behaviors. Of course, this focus does not exclude aggression, but it does lend the volume a clear emphasis. This was one of the few guidelines we provided to the contributors, namely to focus primarily on violence, though not excluding relevant research on aggression and aggressive behavior. We also asked authors to cover issues related to gender and culture as part of their contribution, rather than focusing on these issues as separate substantive chapters. We thus were quite light on guidelines, leaving it to each author or team of authors to present the most important issues in their discipline, rather than superimposing an

artificial template on chapter format or substantive content.

Each of the three editors brought to this task different strengths, perspectives, and training, as well as somewhat different substantive foci and areas of scholarship. Each of us, however, shares an interest in studying violence and aggression. In no small measure, this shared interest can be traced to the profound influence of one important scholar, David Rowe, with whom each of us had the pleasure of working. David was a mentor, a departmental colleague, a collaborator, and a friend to each of us in a different way.

David had a profound influence not only on our thinking and scholarship regarding aggression, violence, and deviance but also on our careers as scientists. His controversial style was sometimes revered, and sometimes scorned, not only on campus at the University of Arizona but also throughout social and behavioral science communities within the United States and abroad. David was a true scholar, with limited interest in politics, but with virtually infinite energy and motivation for science and the growth of knowledge. As such, David frequented the sociology/criminology colloquia on campus and co-taught courses and collaborated with colleagues from the department of psychology. He also maintained a vibrant genetics lab, wherein Alex Vazsonyi participated in DNA sample collection and extraction and in the genotyping of candidate gene polymorphisms over a decade ago, well before the current rage. This was typical of David's persona and professional presence, which included attendance at the annual or biennial meetings of the Behavior Genetics Association, the Society for Research in Child Development, as well as the American Society of Criminology. His highly prolific scholarship and publication record closely matched this interdisciplinary approach. At its core this approach embodied the essence of behavior genetic methods in seeking to uncover and understand the contributors to variability in aggression, violence, deviance, or delinquency, regardless of whether these influences were due to inherited differences and propensities *or* to socialization pressures and other experiences – something so many misunderstood about his research.

It would be challenging indeed to identify the most integral examples of David's scholarship. Those of greatest relevance for the current volume would include his theory of crime, published in an edited volume by Thornberry (1997), *Developmental Theories of Crime and Delinquency*; his own books, *The Limits of Family Influence* (1994) and *Biology and Crime* (2002); and several highly influential papers published both in developmental journals (e.g., *Child Development* and *Developmental Psychology*) and in criminology journals (e.g., *Criminology* and *Journal of Research in Crime and Delinquency*). David also published seminal work on developmental processes, including his paper, "No More Than Skin Deep" published in *Psychological Review* (1994), as well as papers that pioneered assessments of the vertical transmission of deviance through the study of sibling resemblance. Finally, David was one of the architects of the National Longitudinal Study of Adolescent Health (Add Health), a research project that includes a twin sample to facilitate behavior genetic inquiry.

In David's spirit of being a multidisciplinary social and behavioral scientist, the current collection represents theoretical advances and quantitative developments, as well as diverse substantive empirical approaches to the study of violence and aggression, broadly construed. Thus, we dedicate this volume to our colleague, mentor, and friend, David C. Rowe, for his lifetime accomplishments and contributions to the study of violence, aggression, deviance, and crime. David was truly a gentle giant who cast a long shadow over these research domains. It is a shadow that will follow us, and the field, for a long time to come. His contribution and dedication will not soon be forgotten.

Part I

GENERAL PERSPECTIVES

CHAPTER 1

Understanding Violence

Patrick H. Tolan

Defining and Understanding Violence

Defining Violence – I Know It When I See It

In defining violence, the oft-quoted statement by Justice Potter Stewart (*Jacobellis v. Ohio*, 378 U.S. 184, 197, [1964]) on what constitutes obscene material or hardcore pornography comes to mind: "I know it when I see it. . . ."

Violence, like obscenity, is generally considered undesirable, yet there is substantial variation in what is included and the features considered critical for defining it (Tolan, Gorman-Smith, & Henry, 2006). Variations that emphasize different aspects of motivation, impact, and action and of psychological, social, and political meaning lead to quite different definitions. These variations carry forward important implications for how violence is understood, how its patterns are identified, how risk factors are related, and which interventions and policies seem most appropriate. In fact, these variations can lead to different conclusions from a given set of data, testimony, and other information (Loseke, Gelles, & Cavanaugh, 2005). The lack of consensus hinders coordination and comparison between studies, programming, and policies designed to address violence, which in turn impedes the impact these interventions have on this serious public health problem. As Justice Stewart's comment alludes, almost everyone can tell whether or not a given act or situation is violent. However, it is more difficult to identify clearly extractable characteristics that can be generalized in determining what is violent and what is not.

This chapter briefly reviews some issues underlying the persistent variations in definitions of violence, including those offered officially by such agencies as the World Health Organization and the Centers for Disease Control, those offered by commissions within professional organizations such as the American Psychological Association or the Institute of Medicine, and those shared by segments of researchers or policy advocates. The intent is to summarize major issues in defining violence, including identifying some commonly recognized categories. This review is followed by a more focused discussion of controversies in

defining and understanding family violence, which is arguably the predominant portion of violence. The issues occurring within the family violence arena provide an excellent example of the issues that arise in attempting to define violence. The chapter also focuses on violence during one age period, youth, and suggests differentiating violence into four types for the purpose of furthering and specifying patterns. This review is presented to illustrate how definitional issues can affect our understanding of violence and the ultimate utility of efforts to reduce violence and its harmful impact.

A NOTE ON PERSPECTIVE

As emphasized throughout this chapter, the variations in interest and the perspective of the stakeholders can explain much of the differences in how violence is viewed and defined (Chalk & King, 1998). Accordingly, it is important to note that this review is written from the perspective of a violence research base focused on youth and family violence. The focus is also primarily on violence as it occurs and affects various cultures and groups within the United States. Fit and generalization may decrease as one moves to other settings and targets and to cultures other than Western industrialized societies.

The Challenge of Defining Violence

Violence as a Distinct Form of Morbidity and Mortality

Typically, violence is differentiated from disease and unintentional injuries because it involves the intention to harm self or another. The notion of intent to injure is a common and central feature of what is meant by violence (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). Its importance can be seen in the common legal distinction among an accident (no intention), negligence (failure to show due caution or care that results in an injury or harm), recklessness (acting in such a manner as to greatly increase the potential for injury), and such crimes as assault or battery, in which the intention (*mens rea*) is essential to prove that the crime occurred and that the person charged is responsible or guilty. What is violent and how serious or offensive is that violence depend on how fully formed the intent to harm is.

This distinction is particularly important for public health efforts to reduce violence because it focuses on motivation, suggesting that interventions, whether legal, educational, or behavioral, might be most effective if informed by the motivation of those acting violently or the precipitants that might increase the likelihood of violence. Yet, the perceived role of motivation is a matter of ongoing controversy and often results in countervailing actions and policy advocacy. Some prefer to emphasize personal responsibility and favor legal methods to influence violence, whereas those who view it as a behavioral health issue may prefer training or environmental manipulations that lessen its likelihood. The former view tends to emphasize distinguishing among types of violence with related differentiation of actions and policies as the most effective response. The latter, behavioral view would emphasize actions and policies similar to those promoted for disease and unintentional injury prevention (e.g., reduce environmental precipitants, reduce risk among those most likely to be affected).

The Challenges of Certainty and Agreement in Defining Violence

There is less certainty, as well as substantial disagreement, about how fully intentional the expression to cause physical harm must be for the act to be considered violent. Similarly, it is an unsettled debate whether, for violence to be present, the intention must be to cause physical harm or merely to coerce another (Tolan et al., 2006). For example, most would agree that threatening to hit someone unless he or she did as you demanded is violent. Whether it is still violent if the threat does not include physical aggression remains a question; how clearly must physical harm be threatened for violence to occur? (Chalk & King, 1998). Stakeholders vary widely on where such boundaries should be drawn (Jouriles, McDonald,

Norwood, & Ezell, 2001). Similarly, they vary widely on whether engaging in what is considered oppressive or coercive practices toward another might be considered violent.

A third factor that influences the definition of violence is a recipient or victim's perception of potential harm or threat of injury or the extent of his or her experienced injury. Some would argue that acts, orientations, or statements that intimidate, oppress, or create undue insecurity are violent, even if they do not involve actual physical aggression or specific verbal threats. Others suggest that violence should be differentiated from the victim's perception of threat, even if only to permit more careful empirical testing of the relation between acts and perceptions (Hines & Malley-Morrison, 2004; Johnson, 1995). When should the perception of threat be considered violence, and when is it, although certainly a problem, perhaps better understood as a correlate or related class of behaviors? Further, how are relationship characteristics, such as high levels of conflict, contemptuous attitudes, or neglect of expected care, related to violence? Are these co-occurring problems, adjacent problems that may overlap, or independent forms of violence?

Thus, although the exhibition of physical force with the intent to coerce or harm another is a common and central aspect of most definitions of violence, there are other important features as well, and these features vary in their centrality in such definitions (Jouriles et al., 2001). A fairly typical example is the definition rendered as part of a World Health Organization summit on violence in 1996: "Violence is defined as the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation" (p. 5).

Although broad, this definition is not among the broadest. A recent review, for example, applied a broad conceptualization of injury in defining violence. Jackman (2002) indicates that violence may include "actions that inflict, threaten, or cause injury. Actions may be corporal, written, or verbal. Injuries may be corporal, psychological, material, or social" (p. 389). This review notes that, without such a broad set of forms of harm, we run the risk of overemphasizing singularly violent acts between individuals, which may not carry as much social and economic importance as do activities broader. This view is found in many attempts to define violence, although they may vary in breadth and the extent to which acts or implied acts other than intentional physical injury are included (see Chalk & King, 1998, for a review of these, and Jouriles et al., 2001, for a cogent discussion of these issues as they pertain to family violence).

Although comprehensive and inclusive, such definitions as Jackman's and those of the WHO may be overly inclusive and not specific enough to allow determining consistently and with confidence whether a given act is violent. Thus, one limitation of such a broad definition is that it becomes difficult to presume what the label of violence means, even if this definition is accepted as the one to use. For example, the WHO definition includes the use of power, not just physical force, as a form of violence. It also includes threats and intimidation along with actual acts of physical aggression. Unlike some definitions, this one does not include acts of omission of care, such as neglect (American Psychological Association Presidential Task Force on Violence and the Family, 1996). However, it does include effects of deprivation and maldevelopment, which implies that neglect is a form of violence. This definition is also typical in broadening potential harm beyond the immediate injury to its impact on subsequent opportunities and functioning. Finally, although not explicitly stated in the definition, the larger document from which it is derived emphasizes that exploitation of differences in physical size, economic capability, and political status and other misuse of power can be equated with violence (Krug et al., 2002).

The interest in not constricting the parameters of violence may have the unintended effect of introducing more variation

into what is meant or what can be presumed by the term *violence*. As a result, such definitions may fail to differentiate or calibrate violence by seriousness or potential to injure. In turn, such broad and nonspecific definitions may sacrifice clarity that facilitates scientific advancement, the shared understanding of findings, advocacy arguments, and policy requirements. Thus, we may improve our understanding, communication, and problem solving about the nature of violence and what can be done about it if we strive for less inclusive definitions of violence.

Cultural and Societal Variations in What Is Considered Violence

Another important challenge in defining violence is that cultural differences may affect the meaning of the terms "violence" and "injury" (Walters & Parke, 1964). For example, injury in some cultures extends to attempts to harm or manipulate the well-being of others, whereas in other cultures, injury is reserved for physical harm. Similarly, what is considered very offensive in one culture may be considered acceptable, even expected, behavior in another. Even if the force is clearly physical, such acts may not be seen as violent, or they may not be treated as similar to other acts of violence. Whether cultural acceptability and common occurrence should be considered as criteria for differentiating violence from other physical acts or harmful methods remains controversial. For example, in a state of armed struggle, teaching children to have empathy for and not act violently toward members of the warring faction may seem valuable in reducing violence (or similarly among gangs in an urban community in the United States or other scenarios). Yet, that very training may be considered as harming the children by diminishing their vigilance and risking their safety (Garbarino, 1996).

Cultural considerations in the definition of violence are also evident in how fear and perceived safety are related to actual levels of harm. For example, in the United States, there is a growing belief that schools today are more violent and dangerous, with a corresponding belief that students are less safe, with its negative ramifications for learning. However, this perception is countered by data showing that schools remain one of the safest settings for children and adults (Tolan, 2001). If the perception of violence leads to a harmful impact on felt safety and on developmental progress in learning, is this violence or is it important to differentiate that impact from the effects of actual violent incidents?

Gender and Violence

Related to the cultural and societal variation in the orientation to violence is the understanding of gender in violence. Evidence clearly shows that males experience greater levels of violence than females (Farrington, Langan, & Tonry, 2004). Gender differences, particularly in physical aggression, seem to be present early and remain throughout development (Tremblay et al., 2004). Further, it is widely held that male aggression includes more violence, ability to harm, intimidation, and other threatening aspects than female aggression. Male aggression and violence, it is argued, is more likely to be part of a pattern of coercion, intimidation, or contempt. This difference in social power is considered important in defining violence and in locating concerns about battering, political and economic inequities, and social resources when characterizing gender-based violence (APA Presidential Task Force, 1996; Jouriles et al., 2001). Gaining a better understanding of violence requires due consideration of how engrained and how important violence-related beliefs can influence definitions. The view of gender in relation to violence, as well as other cultural and societal variations in how a given act or perception is related to violence, can be marked through legal codification, traditions, or social structures, and other sanctioning of the behavior is often influential in shaping violence definitions (Chalk & King, 1998; Tolan et al., 2006).

Moreover, there is much controversy about how such cultural variations and gender specifically should be incorporated into

violence definitions. For example, even if legal or sanctioned, should actions that diminish the rights or status of others, and by so doing promote violence, be labeled "not violent" in a given culture (Fagan & Browne, 1994)? When an act seriously harms the viability and safety level of a community, even if legal or sanctioned, should it still be considered violent? Is the failure to care for those in pain or to impose prolonged neglect or discomfort an act of violence? Not surprisingly, some argue for culturally based definitions of violence, whereas others argue for absolute definitions, with variations by culture or society to be measured and then interpreted within cultural contexts and other potential influences (Farrington et al., 2004; Krug et al., 2002).

Further, whether culture norms should be considered when defining a given act as violent can vary depending on the act and who is defining it. Finding a level of certainty and specificity that promotes shared understanding of what is meant by violence yet does not ignore cultural variation and the role of social status and power is among the greatest challenges in defining violence.

The Challenge in Attempting to Formulate a Shared Definition of Violence

Although it might be inferred that it is merely narrow-focused constituencies that stubbornly blocks consensus on a clear and encompassing definition of violence, this view is too simplistic and ignores the complex issues vexing the field. In addition, there is a trade-off between a comprehensive, widely acceptable definition and specificity about what is considered violence or how violence should be connoted. Most essentially, what might be crafted so as to not offend any constituency would fail to respect that those engaged in advocacy, research, program development, and policy formulation recognize that what is defined as violence and what is definitely *not* violence carries substantial economic, political, and social ramifications (APA Presidential Task Force, 1996). For example, there is much controversy about whether violence occurring within intimate, marital, or marriage-like relationships should be termed intimate partner violence, domestic violence, one form of violence against women, or battering (Jouriles et al., 2001). Each of these terms carries quite different connotations about the nature of the violence, the extent to which it is assumed to be unidirectional or inherently the responsibility of one partner (in most cases the male), and the prominence that gender-related social and physical power differences should have in framing, measuring, and addressing the problem (Tolan et al., 2006). Further, there is accompanying disagreement, sometimes even among those espousing a given term, about whether relationship violence should be limited to actual acts of physical force or should include other threatening and coercive actions, statements, and practices. Although there has been increasing interest in conceptually and empirically scrutinizing the validity and utility of these competing terms, resolution remains elusive on key conceptual differences and in relating these concepts in an orderly fashion to advance understanding (Daro, Edleson, & Pinderhughes, 2004). As such, progress has been slow toward shared approaches to the study of relationship violence, how to sample the populations, what measures to use, and how to characterize patterns of prevalence, risk factor correlations, and intervention effects (or lack thereof).

Research and Policy Differentiation of Forms of Violence

Although almost always conceptualized as inherently undesirable, violence is not an uncommon human behavior (Krug et al., 2002). In addition, although violent behavior shares common features, it occurs in many forms. One can identify patterns of repeated use of violence by individuals and by certain groups and identify risk markers for violence, but violence is also something that most persons exhibit at some time, albeit infrequently and often without the clear precipitants implied by risk studies

(Tolan, 2001). In addition, there are violent acts, such as physical punishment of children, that are legally sanctioned and conventionally supported. There are times when violence carries virtue, such as in a righteous war or when a policeman subdues a person who is harming others. Moreover, in literature and popular media, the use of violence to resolve conflict, undo injustices, restore order, and redeem characters is very common. Thus, violence is a ubiquitous yet patterned behavior with substantial concentration in a very small portion of most populations and with conflicting views about its inherent undesirability (Jackman, 2002).

Yet, there is little controversy about the need to address the problem of violence and to view violence as problematic. As the volume of publications attest, it is well documented that violence imposes great costs on our societies through increased mortality and morbidity; decreased capability; related legal, health, and welfare costs; and unrealized human potential (Tolan, 2001). For example, along with unintentional injuries, violence is the leading cause of mortality and morbidity for children under age 12 in the United States (CDC, 2004). Violence is widespread and a leading cause of morbidity and mortality across societies, although there is much variation from country to country and across regions in the rates of violence and types of violence that are most prominent (Krug et al., 2002). For example, in 2000, an estimated 1.6 million persons died of violence worldwide, which translates to a rate of 28.8 per 100,000. Of these, 520,000 were homicides, or a rate of 8.8 per 100,000; 815,000 were suicides, or 14.5 per 100,000 people. War-related deaths numbered 310,000, or 5.2 per 100,000.

Violence costs are difficult to estimate. In part this is because the costs are imbued in burdens to health care, criminal justice, and child welfare and education systems, and as such they are estimates of debatable certainty. However, the WHO estimates the cost of violence in 2000 in the United States to be $126 billion annually for gunshot injuries and $51 billion for stab wounds. One study estimated that each suicide imposes approximately $850,000 in costs (Tolan, 2001).

Lethal violence rates are tied to a country's economic status, with a rate of 32.1 per 100,000 in low- to middle-income countries and 14.4 per 100,000 in high-income countries. Across nations, though, 91% of violent deaths occur in low-income areas of the population. Violent deaths, particularly homicides, are also age related, with a rate of 5.4 per 100,000 among those aged 0 to 4, dropping to 2.1 per 100,000 for those aged 5 to 14, and jumping to 19.4 for males and 4.4 for females aged 15 to 24. This gender divergence persists for the remainder of the lifespan. The rate remains at or near this level for females, whereas for males it remains near this level until age 44 to 55, when it drops to 14.8. At each succeeding decade, the rate declines some for males. Suicide shows a different age pattern, climbing for each age period, from negligible rates for those under age 15 to rates of 15.6 for 15- to 29-year-old males. This rate more than doubles, to 44.9 per 100,000, for males older than age 60. Rates for females, although also negligible in childhood and lower across the lifespan than for males, jump from approximately 12 per 100,000 to 22.6 per 100,000 after age 60.

The proportion of violent deaths due to suicide or homicide varies considerably among regions of the world, implying that cultural differences may relate to patterns of violence, particularly lethal violence. Violent deaths are much more likely to be due to suicide than homicide in European, Southeast Asia, and the Western Pacific regions, but much more likely to be homicide in the Americas and Africa. However, within these overall regional differences, there are major variations in relative rates of homicide versus suicide among countries and within and across countries among urban and rural populations, richer and poorer segments, and ethnic groups.

Identifying Categories or Types of Violence

Despite this controversy and considerable challenge in defining violence, there is the

recognition that differentiating the many categories of violence may be valuable for epidemiology, risk and causal understanding, intervention, and policy (Elliott & Tolan, 1999). At the broadest level, a distinction is commonly made among collective violence, self-directed violence, and interpersonal violence (WHO Global Consultation on Violence and Health, 1996). Collective violence refers to acts by groups, often perpetrated for political purpose. Most typically this refers to oppressive intent to suppress liberty and economic opportunity of others. This form of violence while emerging as more important, is not the focus of most of the work on youth violence. Self-directed violence includes self-injurious (abuse, mutilation) and suicidal behaviors. Interpersonal violence refers to violence between individuals and is predominantly family violence, which is the most common form of violence to others in the United States. Family violence comprises three broad categories: domestic violence or violence to or between romantic or marital partners, child abuse or violence toward a child, and elder violence (Tolan et al., 2006). For adolescents, acquaintance violence and community violence (violence toward or from a person in the community but not personally known to the other, such as a member of a neighboring gang) are common forms of interpersonal violence. Another form of interpersonal violence is media violence, which is exposure to violence through popular media, such as television shows, movies, video games, music, and print. Another category of violence often included as a component of interpersonal violence is institutional violence or violence that occurs within work, school, prison, nursing homes, or other institutional settings. Implicit in this notion is that something about the setting precipitates, tolerates, or promulgates the violent acts.

Within interpersonal violence, many surveys and much research single out sexual violence from other forms of violence, likely because of its particularly offensive status. It may also be differentiated because of assumptions about differences in causes, responsiveness to treatment, and patterns of that behavior (WHO Global Consultation on Violence and Health, 1996). There is increasing recognition that, although worthy of distinction, sexual violence should not be omitted from violence study or policy, but rather related and differentiated from other forms of violence as is scientifically supported (Fagan & Browne, 1994).

Categories of Family Violence: An Example of Definitional Controversies

These major categories of violence do not constitute all forms of violence, and none is free of effects and uncertainty stemming from the definitional issues raised. Each is encumbered with definitional challenges. However, the designation of types of violence does provide a base for comparing their conceptual differentiation and similarity. Family violence accounts for the largest portion of violence across countries and groups. Yet, it is clear that family violence has several forms, with no consensus about how the forms should be differentiated, characterized, and related. As noted by Jouriles et al. (2001), these are more than semantic disputes: they represent major differences in views about the important features of the problem. In fact, family violence presents a particularly apt example of how the issues involved in defining violence are related to the identification of and relationships among forms of violence.

Family violence is a more recent term used to refer to the three major types of violence among family members: domestic violence; child abuse or neglect or other major failings in parenting; and elder abuse, usually of one's parent or former caregiver (Tolan et al., 2006). As noted in Tolan and colleagues' earlier more extensive review, within each area, but most contentiously within domestic violence, controversy exists about what constitutes family violence and which related terms should be used to describe these categories.

A central controversy is the degree to which the term "family violence" should be synonymous with abuse or substantial mistreatment of family members (Jouriles et al.,