

HUMAN EVOLUTION, HISTORY AND VIOLENCE

An Introduction

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This special issue brings together original contributions by scholars from various disciplines that examine how evolutionary and historical research can advance our understanding of violence. In combining archaeological, anthropological, biological, sociological, and historical research the papers outline a perspective that transcends the conventional boundaries of criminology. Its core feature is the idea that we need a better understanding of the interaction between the evolutionary forces that shape the universal mechanisms associated with violence, and the ways in which social institutions, beliefs and structures of daily life control or amplify the potential for violent action.

Introduction

Why should criminologists be interested in evidence for a large-scale massacre in Neolithic Germany, the reasons why noblemen murdered their monarchs in the Middle Ages, the dynamics of blood feuds in eighteenth and nineteenth-century Serbian Montenegro, the trends of infanticide in sixteenth and seventeenth-century England, the age pattern of homicide offenders amongst the Gisu (in Eastern Uganda) in the 1950s and 1960s or whether state coercion was responsible for the compliance of Germans while their leaders killed millions of civilians during the Nazi regime?

The answer is that these issues strike at the very heart of the criminology of violence: they are aspects of the question of where violence comes from, how it is embedded in human history, how social institutions shape levels and manifestations of violence and how state order relates to deviance. In addressing such questions, the contributions to this issue transgress the traditional boundaries of criminology. They are written by scholars from a broad range of disciplines who share an interest in combining historical research with broader theoretical questions, often informed by evolutionary psychology and macro-level sociological thinking, about the nature of violence in human society. With some very few exceptions, interest in the kind of interdisciplinary topics addressed in this issue is a very recent phenomenon. Until recently, historians of violence were hardly aware of biological or neurological research on human aggression, while very few criminologists ventured into history or prehistory to gain a fuller understanding of problems in contemporary societies.

The contributions in this issue document innovative attempts to combine historical scholarship with theoretical reflection on the causes of human violence. I would like to highlight six themes that reflect some of the questions that underpin the following contributions.

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History and Evolutionary Theory

Over the past 30 years, the history of crime and violence has been a burgeoning field of research, especially in Europe. Much of this research is rooted in the classical tradition of the humanities and cultural sciences. Historians traditionally emphasize variability and contingency, the uniqueness of specific places, actors and historical periods. They are attentive to variations in the meanings and discourses of violence, examine historical manifestations of violence such as witchcraft or duels and often draw their analytic framework from cultural studies. However, as more studies emerge on the topic, some striking commonalities across space and time become evident. Thus, fights in medieval towns were as much a weekend affair between groups of men over trivial altercations as they are in contemporary societies (e.g. Hammer 1978; Ruff 2001). Also, across Europe, the evidence suggests that the predominance of male homicide perpetrators (between 85 and 95 per cent) was resistant to all cultural and economic change, and Amy Nivette shows that the sex ratio of homicide offenders also holds across diverse societies examined by anthropologists.

Historians of crime, while noting such strange coincidences, have hardly tried to reflect on how they may be interpreted theoretically. To overcome this situation, John Carter-Wood argues for an active engagement by historians with evolutionary approaches to violence. In his view, the standard social science model (SSSM) runs into serious difficulties, if an essentially constant phenomenon such as the sex ratio of homicide offenders is explained by historical and regional variety of culturally constructed masculinities.

The dispute between proponents of the standard social science model and evolutionary psychology is sometimes seen as a conflict about the significance of history and culture, the influence of norms and institutions relative to genes and hormones (Levy 2004). As John Carter-Wood explains, Darwinian views on human violence hold that many of the correlates and motives of physical aggression (e.g. demographic features such as age and gender of perpetrators, motives such as jealousy, revenge and power, and personality characteristics such as impulsivity and daring) can be observed across all societies and that they are in line with the predictions of evolutionary theory (Archer 2009). Cultural models of society, in turn, assume far fewer constraints on human behaviour: proponents of this perspective point out that the very perception of what constitutes violence is variable over time and space, that humans must learn aggressive models such as duelling or knife-fighting from others and that social norms can promote or control aggressive behaviour.

In line with the views of many of the other contributors to this issue, Carter-Wood argues that the seeming opposition of genes and culture as mutually exclusive is misleading. Rather, he argues for an encounter between evolutionary theory and history: thus, historians of violence could benefit from evolutionary thinking, which could provide a theoretical framework for analysing, say, the motivational dynamics of violent conflicts described in the judicial records across medieval and early modern Europe. Evolutionary anthropologists, on the other hand, could learn a lot from taking the evidence unearthed by historians more seriously than they usually do.

The Prehistory of Violence

Arguments for an evolutionary basis of the mechanisms associated with violence must make assumptions about how, why and when violence was adaptive, that is, increased the

chances of survival, throughout the history of *Homo* since the separation from the other Great Apes about 4–8 million years ago. In this volume, Randolph Roth and Christopher Boehm discuss some of these assumptions.

However, extremely little evidence has survived to document either the frequency or the role of violence in the Palaeolithic period (but see, e.g. Guilaine and Zammit 2005; Martin and Frayer 1997). Scholars interested in the role of violence across human evolution have therefore often relied on more contemporary anthropological evidence of simple, non-state societies (e.g. Keeley 1996). In her paper, Nivette provides an overview of the relevant literature. While the homicide data that she presents are fraught with methodological problems (that she discusses), they certainly suggest that lethal aggression was widespread amongst simple societies, although the evidence also suggests considerable variation between societies and over time.

More genuinely historical information, mostly based on archaeological research, becomes available in the Neolithic period (from about 7000 BC). While these societies were significantly more complex than their precursors, they still shed important light on the problems of cooperation and conflict that humans faced before the emergence of larger state structures. Reviewing research based on a variety of types of evidence, archaeologist Ian Armit suggests that violence appears to have been a readily available behavioural option that was chosen if the considerable costs of aggressive action were likely to be lower than the benefits of securing access to scarce goods and power through violence. Armit thus sees violence as an integral part of the behavioural repertoire of prehistoric man, as one end of a spectrum that extends from empathy and friendship to antipathy and hate. Thus, far from being omnipresent, there appears to have existed significant variation in levels of lethal fighting across time and over space.

Cooperation and Retaliatory Violence

One goal of evolutionary theory is to identify universal mechanisms, supported by hard-wired facultative mechanisms that are triggered by contextual characteristics, which increase the likelihood of violent behaviour. As violence is a conglomerate of many different behaviours, this requires the theory-driven distinction of specific types of violence and their respective underlying adaptive logic. The domain, where this notion has probably been most fully elaborated, relates to *retaliatory violence*. The idea was first formally developed by the evolutionary biologist Robert Trivers (1971) in his seminal work on the evolution of reciprocal altruism—a paper that several contributions in this volume refer to. In that paper—which is surprisingly little known amongst criminologists—Trivers asks how altruistic behaviour (helping genetically unrelated others, sharing food, caring for the sick, cooperating with others, etc.) can possibly have evolved as a result of natural selection. Using the formal model of the prisoner dilemma, Trivers shows that altruistic behaviour will develop as a ‘rational’ (i.e. advantageous to both actors) strategy if there is a good chance that the other organism will reciprocate in a similar way at a later time. Based on this model, he develops a number of predictions about the kinds of psychological systems that support altruistic, that is, cooperative behaviour. Amongst these, the most important in our context is what Trivers calls *moralistic aggression*. As altruists are at risk of being abused by cheaters, a strong emotional and behavioural system of indignation, resentment and retaliatory aggression develops as a protective mechanism: the negative emotions help altruists to stop cooperating when they are being cheated,

the retaliation inflicts costs on the uncooperative individual (injuries or death) and the display of the retaliation warns others to cooperate in the first place (Dawkins 2006).

Cultural anthropologist Christopher Boehm elaborates the theme of reciprocity by examining the ancient roots of retaliatory violence in the case of homicide. Negative reciprocity (i.e. the tendency to strike back if attacked), Boehm argues, emerges in the relatively egalitarian hunter-gatherer societies as a political strategy that aims at maintaining a balance of power and at warning first-time aggressors against striking again. It is emotionally supported by grief turning into rage. Thus, while politics of negative reciprocity (i.e. moralistic violence) and retaliation are seen by Boehm as a deeply ingrained pattern that humans developed as hunter-gatherers, he also makes it clear that a combination of contextual factors and cultural systems is required to channel such feelings into the regulated patterns of feuding seen, for example, in the tribal society of Montenegro. More specifically, as humans become more sedentary, the informal retaliation becomes systematized through cultural rules that are morally based. As becomes evident from his description of the perplexing Montenegrin rules of conducting and settling feuds, of avenging and peace-making, the evolutionary argument leaves plenty of space for cultural tradition and socio-political context as highly relevant historical forces.

The Biological Underpinnings of Violence

Evolutionary theories about the adaptive functions of violence in the course of human history have developed a number of specific hypotheses about the adaptive functions of violence (e.g. Shackelford 2005), the biological mechanisms associated with them (Walsh and Corporation 2009) and the ways in which age and sex patterns or violent motives can be derived from such patterns (Daly and Wilson 1997). In his contribution to this issue, social historian Randolph Roth proposes a fascinating framework to integrate evolutionary and biological scholarship into an explanation of the variability of violence across time and space.

His arguments are based on extensive research on the history of violence over the past 450 years across the United States and Europe (Roth 2009), more particularly the massive fluctuations in infanticide and homicide rates found on both continents. In the broadest sense, his core argument is that the question of whether genes or culture drive these changes is the wrong question. Rather, he argues, both are intricately intertwined in producing the behavioural shifts that Roth observes in his data: thus, environmental conditions such as periods of famine, political crises or breakdowns of social order have effects on behavioural patterns that may result in homicide or infanticide through their effects on the human biological system. In explaining why evolutionary psychology can cope with the variability of either homicide or infanticide, Roth proposes the concept of facultative adaptations, evolved mechanisms that are activated only under certain environmental circumstances. Roth illustrates the argument for infanticide and maternal care. Under supportive environmental circumstances, he argues, a number of biological processes support parental instincts. Under adverse circumstances, however, higher cortisol levels and possibly other endocrinal mechanisms lower the propensity for parental investment.

Similarly, Roth finds that historical fluctuations in homicide rates are driven by a set of factors that can be summarized as the legitimacy of overarching political institutions, fair

and effective police and courts, a trust in the government, a sense of community and an accepted mode of allocating resources. Again, rather than being content with finding such an association at the level of macro-level variables, Roth argues that we need to understand the 'deep biological roots' that support trust and cooperation under stable conditions and promote anger, retaliation and aggression under conditions of low political legitimacy. Referring to a wealth of literature on how serotonin and testosterone levels or the 'trust-hormone' oxytocin react to environmental stimuli, he argues that such links can be plausibly constructed. While it is not clear yet whether such causal links operating between macro-level social conditions and biological mechanisms can be shown empirically, Roth certainly presents a remarkable step towards integrating evolutionary, biological and sociological arguments into a model of how and why levels of homicide and infanticide change over time.

Violence and Power

Contemporary criminological research finds that violence is dysfunctional, associated with psychological disorder or neurocognitive impairments, and mainly committed by people who fail educationally and economically (e.g. Moffitt 1993). In contrast, evidence from historical research on the class–violence relationship is much more ambivalent, with some studies on medieval homicide, rape or robbery finding a significant involvement of members of the nobility or other established social groups (e.g. Hanawalt 1979; Ruggiero 1980). Such findings suggest that the relationship between marginality and violence may be much more variable than criminologists often assume. In fact, as evolutionary theory assumes that violence has evolved as a solution to adaptive problems met by humans over thousands of generations, it would expect that high violence skills are associated with respect and high status. In his discussion of the European Bronze Age (from around 3000 BC), Ian Armit reports supportive respective evidence. In this period, specialist weaponry first appeared, probably associated with the rise in violence specialists, the warriors. Violence and the threat of violence were thus woven into wider ideological statements about status, prestige and wealth.

Also, evolutionary theory might expect the potential for violent conflict to be particularly high where competition for resources is strong and the potential gains are large. In my own contribution, I therefore analyse violent behaviour at the very top of the social hierarchy, the rulers of European monarchies between 600 and 1800 AD. The analyses suggest that the killing of monarchs was frequent in European history, with medieval murder rates so high that one can easily see kings as having lived in a situation of permanent internal warfare. Also, regicides reveal the political logic of violence: kings tended to be murdered if they were believed not to provide fair and reliable protection, if there were acceptable alternative claimants, if challengers organized themselves and if they estimated a good chance of becoming the successors.

Morality and Compliance in State Societies

In several of the contributions to this issue, the rise in the state and its effects on the organization of social control are seen as a major factor in transforming the role of violence. In a process that Norbert Elias (1978) described as a 'civilizing process',

the state increasingly monopolizes the right for the retaliatory use of force and transforms it into the institutions of the criminal justice system.

However, the question of when the state's appropriation of the means of force and the citizens' compliance with the law are morally justified is a complicated one, as the paper by Eric Johnson on the social bases of compliance in Nazi Germany shows. In his study, he re-examines an issue that has been the object of a long debate amongst specialists of the Holocaust and the nature of the Nazi regime, namely whether the almost complete lack of resistance to the mass murder of German and European Jewry was mainly based on the coercive power of the regime or whether it rested on the consent of its citizens. Based on an extensive retrospective survey of experiences with and fear of prosecution, Johnson concludes that consent and compliance, rather than terror and coercion, characterized the experiences of most Germans during the Third Reich.

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