Racial Animosity, Adversary Effect, and Hate Crime: Parsing Out Injuries in Intraracial, Interracial, and Race-Based Offenses

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Abstract
Although most crime in intraracial, studies suggest that interracial victimization is more injurious. This may be especially true for racially motivated offenses; however, studies of hate crime have not disaggregated which racial dyads are associated with injury, and whether they are more injurious than interracial victimizations generally. Likewise, studies of interracial violence often assume a theoretical framework grounded in racial animosity, but cannot test motivation directly. Using the National Incident-Based Reporting System (NIBRS), this study compares injuries across intraracial, interracial, and bias-motivated offenses. We find differences across racial dyad and the presence of racial animosity, however, the results are largely driven by the race of the offender. Implications for racial animosity theory, adversary effect, and hate crime literatures are discussed.

Keywords
injury, hate crime, racial animus, NIBRS

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In line with studies that explore how situational factors predict offending and victimization (see Sampson & Lauritsen, 1994 for an overview), research has extended these factors to explore the outcomes of violent encounters. However, this research has been inconsistent in identifying which characteristics are salient predictors of injury. For instance, although research fairly consistently finds that multiple offenders increase the likelihood of injury (Melde & Rennison, 2008; Schnebly, 2002), the influence of bystanders and other third-parties is inconclusive (Chu & Kraus, 2004; Felson & Messner, 1996; Powers, 2015; Tark & Kleck, 2004). Drug and alcohol use by the offender may serve to exacerbate the incident and result in a greater likelihood or severity of violence (Schnebly, 2002), although other research reports no relationship (Bachman & Carmody, 1994; Martin & Bachman, 1998). Weapon use by the offender may be more or less likely to result in injury. For instance, whereas some find that the presence of a gun increases the likelihood of lethality (Kleck & McElrath, 1991) and injury (Melde & Rennison, 2008), some research suggests that the coercive power of a gun results in less injury (Kleck & Delone, 1993; Schnebly, 2002).

These disparate findings of situational characteristics on injury may be driven in part by other dynamics of these violent encounters, such as the demographic characteristics of the victim and offender. The most studied of these dynamics is gender, where research has sought to examine whether women face more injurious outcomes compared with men. Aside from gender, the role of race (both offender and the victim) and injury risk has been explored; however, the results of these studies have been inconclusive. With regard to the offender’s race, both Schnebly (2002) and Tillyer, Miller, and Tillyer (2011) find that Black offenders are more likely to injure their victims compared with White offenders, while Melde and Rennison (2008) find the opposite. Some studies report that the victim’s race does not affect the likelihood of sustaining an injury (Bachman & Carmody, 1994; Martin & Bachman, 1998; Melde & Rennison, 2008), and others find that Black victims are more likely to sustain injury or more severe injury (Apel, Dugan, & Powers, 2013; Kleck & Delone, 1993). These studies often do not consider the victim and offender race in tandem (for a recent exception see D’Alessio & Stolzenberg, 2009). This distinction is important, as the theoretical framework applied to studies that explore racial variation in injury are inherently tied to the race of the victim offender.

Furthermore, this body of research is largely divorced from the parallel literature examining racially biased-motivated offenses. Extending these comparisons to hate crime is important for a few reasons. First, one of the theoretical perspectives applied to these studies (outside of the hate crime literature) adopts a framework that suggests that racial animosity underlies
interracial violence and exacerbates injury as a result. However, most of these studies are unable to measure the motivation of the offender, and therefore the extent to which more injurious outcomes for interracial assaults are associated with racial animus instead of other dynamics is unknown. Second, hate crimes are explicitly motivated by animus, and these bias-motivated offenses are thought to be especially heinous and more likely to feature injury (Harlow, 2005; B. Levin, 1999; Messner, McHugh, & Felson, 2004; Wilson, 2014). However, the literature on hate crimes has generally compared bias crimes to nonbias-motivated offenses, without exploring other dynamics of these encounters. The racial dyad of the offender and victim may produce different outcomes separate from the exacerbating effect of racial animus.

An explicit comparison of the racial dyads in bias and nonbias-motivated offenses allows for the disentanglement of the mechanisms that lead to injury, and allows for testing of extant theories. To that end, the current study contributes to the literature by comparing injurious outcomes across nonhate crime intraracial, nonhate crime interracial, and bias-motivated offenses. In doing so, we draw together bodies of literature that have largely been divorced from one another. We ground our study in existing theories of race-based violence and theoretical perspectives taken by previous research in this area. We then situate the literature on hate crime in the larger context of race-based violence. We use the National Incident-Based Reporting System (NIBRS) to explore both the racial dyad and racial animus of incidents on both the likelihood and severity of injuries for victims.

### The Role of Race in Violent Encounters

Studies of interracial and intraracial violence typically use the adversary effect or theories of racial animosity and racial threat to explain patterns in offending and victimization, including the severity of violence. This review of the extant literature first discusses these perspectives as they relate to nonhate crimes, and then situates a discussion of hate crime in this larger body of literature that explores the role of race in shaping the dynamics and outcomes of violent incidents.

#### The Adversary Effect

The adversary effect suggests that offenders choose their victims and tactics based, in part, on the perceived dangerousness of the victim. Based on this perspective, because Black men are stereotyped to be physically formidable and violent, offenders are more wary of potential Black victims because they fear that Black men are able and willing to physically retaliate. With regard
to influencing offenders’ tactics, in support of the adversary effect, using the National Crime Victimization Survey (NCVS) and Supplemental Homicide Report (SHR), Felson and Paré (2010) find that Black victims, compared with White victims, are more likely to be attacked with guns, equally likely to be attacked with other weapons, and less likely to be victims of unarmed assault, suggesting that offenders use firearms to leverage compliance. Likewise, Felson and Messner (1996) also find that guns are disproportionately used against Black victims, and this finding was not contingent on the gender or race of the offender. Drawing on ideas related to the adversary effect in Anderson’s (1999) work, Baumer, Horney, Felson, and Lauritsen (2003) use the area-identified NCVS to examine whether offender weapon use, victim resistance, and injury are more prevalent in violent incidents in disadvantaged neighborhoods. They find that weapon use and victim resistance are used more in disadvantaged areas where these perceptions are likely to be more prevalent.

The adversary effect also suggests that attacks on Black victims are more forceful and thus are more likely to result in injury or even death. Felson and Painter-Davis (2012) find that Black victims are more likely to be killed in a violent incident than White victims, regardless of offender race. Using the NCVS and SHR, Felson and Messner (1996) also find that offenders are more likely to kill Black victims than White victims, but these results were not universal across crime type, as they did not extend to robberies or nonlethal injuries. They suggest that tactical concerns about victim retaliation may not be enough to motivate a robber to use lethal force. Rather, the presence of a grievance, as is ostensibly the case with assault, combined with the target-imposed costs of race, results in more injurious outcomes for Black victims.

**Racial Animosity and Racial Threat**

Racial animosity, as one form of grievance, has often been used as a framework to understand intraracial crime. In this way, crime is understood as a “collective liability,” where even victims unknown to perpetrators are chosen because their race, at least in part, motivates the offender or allows him or her to justify violent actions (Black, 1983). According to this perspective, years of oppression and injustice toward Blacks serves as a catalyst for interracial crimes against White victims. Black-on-White interracial crime is more prevalent than White-on-Black interracial crime (Chilton & Galvin, 1985; LaFree, 1982; Wilbanks, 1985), and although inconclusive, some research finds that economic and political competition increases Black-on-White violence (e.g., Jacobs & Wood, 1999).
Racial threat theory is more often used to explain White-on-Black crime. Stemming from Blalock’s (1967) work, as minority populations grow in size and harness more political and social capital, the majority group will respond by using both illegal and legal forms of discrimination to maintain power. This may take the form of the use of the criminal justice system to exert social control, such as increasing the size of the police force (e.g., Liska, Lawrence, & Benson, 1981), the use of arrest (e.g., Brown & Warner, 1992), noncompliance in enforcing laws designed to protect minority populations (King, 2007), or it may take the form of community violence against Black victims. Research suggests that race-based violence, including riots and lynching, is related to the size of the minority population (Olzak, Shanahan, & McEneaney, 1996; Tolnay, Beck, & Massey, 1989). This violence, however, extends beyond rare high-profile events. For example, using NIBRS, D’Alessio, Stolzenberg, and Eitle (2002) find modest support for economic indicators of threat on White-on-Black nonlethal crime, but the findings do not extend to other racial dyads.

Other structural factors may be important predictors of the likelihood and severity of victimization. The distributions of intra- and interracial crime may be merely a reflection of population distribution (Becker, 2007; O’Brien, 1987), or other structural factors not tied to economic or political competition. For example, using NIBRS, Kim, Willis, Latterner, and LaGrange (2016) find that racial segregation is negatively related to Black-on-White assault. Specifically, more segregation is associated with more intraracial violence (compared with interracial violence). However, these findings do not extend to robbery or White-on-Black crime. Becker (2007), using NIBRS, refutes racial threat theory as explanatory of offending patterns and instead finds that intraracial crime is more prevalent, especially when considering smaller units of aggregation, and that residential segregation alone is inadequate to explain these distributions. Rather, a mixture of political, economic, social, and structural conditions informs offending patterns.

Bringing these two frameworks (structural factors and racial animosity/threat) together, even if population distributions and overall structural factors are the driving mechanisms behind distributions of inter- and intraracial crime, these factors are unlikely to extend to indicators of severity within the encounter, at least for incidents involving a single offender and victim. D’Alessio and Stolzenberg (2009) illustrate the divergent predictions in each theory. If racial animosity theory is correct, then interracial assaults should result in a higher likelihood of any injury and of more severe injuries. However, if heterogeneity or structural arguments are correct, then race should have very little impact on injurious outcomes. Using NIBRS, they examine the likelihood of serious injuries and lethality. In their analysis of
In sum, the adversary effect argument is premised on the notion that the victim’s race is factored into a tactical decision to use weapons and/or inflict injury. Alternatively, racial animosity and racial threat theories offer another motivator that exacerbates the injurious outcome of an assault, which may work either in tandem or independently of an adversary effect. It is also important to note, however, that tests of racial animosity and racial threat theories often do not directly measure offender motivation, as it is not readily available in most data. Instead, these theories are used as a guiding framework to explain interracial dynamics and distributions. However, by this logic, comparing race-based hate crime, which is explicitly motivated by racial animosity, to nonbiased inter- and intraracial crime should help disentangle these mechanisms.

**Racially Motivated Hate Crime**

Although the definition varies by jurisdiction, the key feature of hate crime or bias crime is that it is motivated by an animus or prejudice against an entire group of people (Green, McFalls, & Smith, 2001). These types of crimes can include property crime, harassment, or physical violence. Bias-motivated crimes are considered particularly heinous because the victims of these crimes report more severe negative physical and psychological consequences (Garofalo & Martin, 1993; McDevitt, Balboni, Garcia, & Gu, 2001; Rose & Mechanic, 2002), and the psychological trauma and fear extend beyond the immediate victim to the community, which in part provided the basis for the U.S. Supreme Court to rule hate crime laws constitutional (*Wisconsin v. Mitchell*, 1993). Iganski (2001) provides a conceptual framework and analysis for understanding the harms that hate crimes produce. In addition to the unique psychological harm inflicted on the victim which results from being targeted because of unchangeable demographic characteristics or identity, the impact of a hate crime resonates through the victim’s immediate community (which may result in community tension), and to others outside of the geographic community who are demographically similar to the victim and feel targeted themselves. This trauma may extend even further to other marginalized identities and groups who feel these offenses are intended to send a message of animosity toward diversity. In response to an increasing focus on hate crimes in the 1980s, Congress passed the Hate Crime Statistics Act (HCSA, 1990) which required the federal government to collect data on the nature and prevalence of hate crimes, defined as crimes
motivated by a prejudice based on race/ethnicity, religious, or sexual orientation (28 U.S.C. § 534).

Crimes motivated out of a racial bias are the most prevalent form of hate crime (Messner et al., 2004; Perry, 2001; Sandholtz, Langton, & Planty, 2013; Strom, 2001). The frequency of Black-on-White/White-on-Black hate crime occurs more than White or Black on any other racial group (Cheng, Ickes, & Kenworthy, 2013). According to official data, Blacks are more likely to be the victims of racial animus attacks compared with Whites (Messner et al., 2004). However, contrary to estimates from the Uniform Crime Reporting (UCR) Program and NIBRS, which are based on incidents known to law enforcement, estimates from the NCVS, which are based on self-reported victimization, suggest that the risk of racially biased victimization is fairly comparable with regard to gender and race (Harlow, 2005).

Studies regarding the context in which racially motivated hate crime occurs suggests that it shares some common correlates with nonhate crime, but it is also unique. In a macro-level analysis of anti-White and anti-Black bias crimes, Lyons (2008a) finds that anti-Black hate crimes are more likely in White racially homogeneous areas undergoing demographic shifts in Black in-migration. Likewise, Gladfelter, Lantz, and Ruback (2017), in an application of social disorganization theory to bias offenses, find anti-Black bias to be most prevalent in residentially unstable and White racially homogeneous areas. Conversely, anti-White hate crime peaks in more racially heterogeneous neighborhoods where opportunities for interracial conflict are more likely (Lyons, 2008a). This suggests a more similar dynamic between anti-White and nonbias interracial crimes compared with anti-Black crimes. Taken together, these findings suggest that conclusions reached from comparisons of nonbiased offenses and racially motivated offenses may be contingent on the race of the offender and victim. This underscores the importance of disaggregating the racial dyad to disentangle the dynamics of these violent encounters.

Hate Crimes and Injury Outcomes

Despite the differences between data with regard to relative risk, many studies, regardless of data source, find that bias crimes are associated with more injurious outcomes for victims (Fetzer & Pezzella, 2016; Harlow, 2005; B. Levin, 1999; J. Levin & McDevitt, 1993; Messner et al., 2004; Wilson, 2014). For example, estimates from the NCVS suggest that approximately one in five victims of hate crime sustain an injury (Wilson, 2014). The increased severity of hate crimes stems, in part, from violent hate crimes often involving more serious forms of victimization, such as rape and aggravated assault.
(Harlow, 2005; J. Levin & McDevitt, 1993). Furthermore, hate crimes may be more injurious because they feature situational characteristics that exacerbate the incident. Racially motivated hate crimes are more likely to involve multiple offenders, offenders unknown to the victim, and are more likely to occur in public. In addition, the victims of hate crimes tend to be young and male (Garofalo, 1991; Harlow, 2005; J. Levin & McDevitt, 1993; Martin, 1996; Messner et al., 2004; Pezzella & Fetzer, 2017). Hate crimes are more likely to involve serial attacks, where the victim(s) have a history of being threatened or attacked (Herek & Berrill, 1992; B. Levin, 1999), and thus be more likely to feature injury as events escalate over time. Relatedly, hate crime offenders may be more likely to assault their victims unprovoked, compared with nonbias offenders who are responding to a specific grievance (Messner et al., 2004). The differences in motivation, coupled with a history of threats and/or violence and unique situational characteristics of these incidents, may result in hate crimes being more detrimental for victims.

Several researchers have noted the importance of disaggregating analyses by the type of bias, on the premise that as the motivation for the assault differs, so too might the dynamics of the encounter. Using NIBRS, Messner and colleagues (2004) find that race-based and other hate crimes are more likely to feature major injuries, but are unrelated to minor injuries. Recently, Pezzella and Fetzer (2017), using NIBRS, find that compared with nonbias assaults, anti-White bias assaults and anti-lesbian assaults result in a higher likelihood of severe injuries. However, anti-Black assaults feature a lower likelihood of severe injuries. Their general conclusions suggest that hate crimes are not more injurious than nonbias-motivated offenses. Taken together, these studies suggest that not all hate crime “is equal” in that other dynamics, apart from the presence of animus, influence the severity of these violence incidents.

**Current Study**

Research on interracial and intraracial crime is largely divorced from the literature on hate crime. Both of these bodies of literature have yielded mixed findings with regard to the likelihood and severity of injury. These differences may stem in part from methodological differences surrounding data (small single-location sample vs. national data), operationalization of injury (likelihood vs. severity), and comparison groups (all nonbias crimes or limited racial dyad consideration). With regard to which groups are included, the comparison of interracial hate crimes with intraracial and interracial victimizations that are not explicitly motivated by racial animus allows for a more thorough exploration as to the processes underlying injuries in these violent
encounters. This is important, as previous research on race-based hate crimes have compared them either with nonbias crimes generally or to other types of bias crimes; however, the literature on racial differences in injury suggest that the racial dyad of the victim and offender matters. Likewise, some of the literature on intraracial and interracial injurious outcomes assumes that a higher likelihood of injury is indicative of racial animus, but information on offenders’ motivations is not readily available in most data. This study contributes to the literature by exploring injury in interracial hate crimes as compared with intraracial and interracial nonbias victimizations. Drawing from the research on the racial effects of injury and hate crime, and guided by adversary effect and theories of racial animosity and racial threat, we identify the following hypotheses, which are summarized in Table 1.

According to the adversary hypothesis, Black victims are perceived to be more dangerous; they are perceived as being physically more intimidating and more willing to retaliate. If this theory is correct, then victimizations against Black victims, regardless of the race of the offender, are more likely to result in injury. Likewise, we would not expect interracial or intraracial crimes against White victims to be especially injurious comparatively. If interracial crimes that are not explicitly hate crimes still represent some level racial animosity, which is fueled by political and economic competition and a history of macro-level racial tension, then interracial crimes, regardless of the race of the victim, should be more injurious. Conversely, intraracial crimes (both White-on-White and Black-on-Black) should not be as injurious.

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Given the literature on hate crime, a constellation of adverse factors, including animus mixed with situational characteristics (e.g., time of day), make injuries more likely. If this is correct, then bias-motivated crimes, regardless of the race of the victim or offender, should result in more injuries than similar nonbias crimes. We would anticipate that these crimes would be more injurious than interracial crimes not motivated by an explicit racial motive.

Table 1. Hypotheses (Compared With White–White Nonbias Victimization).

<table>
<thead>
<tr>
<th></th>
<th>Adversary</th>
<th>Racial animosity</th>
<th>Hate crime</th>
<th>Adversary + Animosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black-on-Black</td>
<td>+</td>
<td>ns</td>
<td>NA</td>
<td>+</td>
</tr>
<tr>
<td>Black-on-White</td>
<td>ns</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>White-on-Black</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Note. The notation “ns” indicates a hypothesis of nonsignificant differences, while “NA” indicates not applicable.
Finally, it is possible that these theories are not mutually exclusive. Racial animosity and adversary effects may operate in tandem. If this is the case, then we would expect that, compared with White-on-White victimizations, Black-on-Black, Black-on-White, and White-on-Black victimizations would be more injurious. However, if these effects are additive, then White-on-Black victimizations would be expected to be especially injurious.

**Method**

**Sample**

Data comes from the aggregated yearly files (2005-2014) of the NIBRS. The NIBRS program collects crime reporting statistics from law enforcement agencies across the country, and while it does not yet have the widespread coverage of the country that the UCR program has, NIBRS includes much more detail about individual crime incidents. All data are available from the National Archive of Criminal Justice Data (NACJD), housed in the Inter-University Consortium for Political and Social Research (ICPSR) at the University of Michigan.

The adversary hypothesis is inherently tied to the gender of the offender and victim because it is premised on the physical formidability of the offender and victim. In other words, all being equal, Black men are perceived to be more dangerous as potential victims. Given the theoretical focus of the adversary hypothesis pertains to male offenders and victims, nonlethal violent incidents involving male victims over the age of 12 and male offenders are included. Incidents further had to involve both victims and offenders who were either non-Hispanic White or non-Hispanic Black. Incidents were also excluded if they involved other crimes that were not person-based offenses (e.g., burglaries, arson, motor vehicle theft, fraud), had missing injury outcomes, or were missing either the offender or victim race.1

These data exclusions result in two broad categories of crimes in the data set: ostensibly predatory crimes based on financial motives (robbery), and sexual or dispute-related victimizations (for a critical review of violence typologies, see Cooney & Phillips, 2002). Incidents considered in these analyses include all violent offenses (i.e., sexual assault, robbery, aggravated assault, and simple assault). Although some previous research has excluded simple assaults from similar analyses, an assault incident is classified as simple or aggravated in part based on sustained injury, with more serious injuries automatically classifying the incident as aggravated. Thus, including both simple and aggravated assault allows for the full range of incidents to be included in predicting injury outcome and seriousness, rather than using the
postinjury incident classification as a predictor of the injury outcome. This inclusion criteria results in 1,310,999 incidents in NIBRS. Of the 1,310,999 incidents, two variables have missing data: offender age (6.8% missing) and weapon type (2.0% missing). To account for this missing data, multiple imputation is utilized with linear regression and 20 imputations. All variables in the analysis are included in the imputation procedure. After imputing, all 1,310,999 cases have complete data. Results are presented for pooled estimates post imputation.

**Variables**

**Dependent variable—Injury.** Injury is operationalized as an ordinal variable reflecting injury level sustained by the victim. This variable reflects the injury reported by the law enforcement officer taking the report, and ranges from no injuries to gunshot wounds. The three levels included in this study are none, minor injuries, and moderate/severe injuries. Minor injuries include bruises and cuts, what is known as “apparent minor injury” in NIBRS. There is a wider range of possible injuries included in the moderate/severe category, but they can be conceptualized as those that may require medical attention. Injuries included in this category are apparent broken bones, possible internal injuries, severe lacerations, loss of teeth, unconsciousness, or “other major injury.” Slightly more than half of the incidents (54.4%) resulted in some injury to the victim, with most of these involving minor injuries (45.4%). Major injuries were less common (9.0%).

**Independent variable—Racial dynamic of victim and offender.** The purpose of this study is to examine whether the race of the victim and offender, considered in tandem, and the presence of an explicit racial bias affects the likelihood and severity of injury. Considering the interest in this study is specific offender–victim racial combinations, incidents were restricted to crimes involving a single victim who was either White or Black, and a single offender where information regarding the race of the offender was known and the offender was either White or Black. Likewise, bias crimes were considered if they indicated the presence of racial or ethnic bias against Blacks or Whites. There were a handful of cases that featured intraracial hate crime (i.e., White-on-White or Black-on-Black hate crime). These incidents were rare and so could not be analyzed separately and were therefore left in their respective racial dyad.

In cases involving multiple offenses, cases were excluded if the top-charge of the incident did not involve either assault, robbery, or sexual assault. Cases were counted as hate crimes if they indicated bias on any of the offenses involved in the incident.
Sensitivity analyses were conducted to check the influence of excluding multiple offender cases and including intraracial hate crimes. This was done by first running models that included cases involving multiple offenders, and no substantive differences in the results emerged compared with models excluding such cases. Second, models were run that excluded cases involving intraracial hate crimes, and no substantive differences in the results emerged compared with models including such cases in their respective racial dyad. Thus, it is unlikely that the exclusion of multiple offender cases or the inclusion of intraracial hate crimes influenced overall results in the models presented here.

As shown on the top of Table 2, hate crime was relatively rare. Both Black-on-White and White-on-Black hate crimes comprised less than 0.1% of the incidents. Regarding the other racial dyads, as expected, intraracial crime was more prevalent than interracial crime. White-on-White victimization was the most frequent (59.2%), followed by Black-on-Black crime (24.5%). Black-on-White victimizations were less common (12.4%), and White-on-Black victimizations were the rarest among nonbias victimizations (3.8%).

Controls. A number of demographic and situational control variables were included. Demographic variables for the victim and offender measured ages (age 16-25, and above or below the age of 30, respectively); victim and offender sex and race were already accounted for via filtering and the racial dyad indicators, respectively. Situational characteristics included the location of the incident, which was dichotomized to reflect whether it occurred near a residence (as compared with a public place). Also included was the time of the incident (before or after 6:00 p.m.), the relational distance of the victim and offender (stranger vs. known assailant), whether the offender was using (or suspected of using) drugs/alcohol at the time of the incident, and weapon use (none, gun, other). Note that for weapon use, there could be both a gun and another (non-gun) weapon in a given incident. Thus, for each indicator, the comparison is to not having that first type of weapon (e.g., gun vs. no gun; other weapon vs. no other weapon), controlling for the second type (other weapon; gun). The type of victimization (robbery, sexual assault, assault) and indicators for the year of the incident were also included.

As seen in Table 2, about a third of victims were aged 16 to 25 (30.7%), and slightly less than half of offenders were older than 30 (41.7%). Incidents were slightly more likely to be in public locations and occur at night (56.7% and 55.7%, respectively), and typically involved known relations (82.6%). The presence of drugs and/or alcohol was infrequent (12.8%), as were guns (9.0%) and other (non-gun) weapons (18.1%). Assault was by far the most
Table 2. Descriptive Statistics, Post Imputation ($N = 1,310,999$).

<table>
<thead>
<tr>
<th>Variable name (%) imputed</th>
<th>$f$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injury level (0.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>598,173</td>
<td>45.6</td>
</tr>
<tr>
<td>Minor</td>
<td>595,448</td>
<td>45.4</td>
</tr>
<tr>
<td>Major</td>
<td>117,378</td>
<td>9.0</td>
</tr>
<tr>
<td>Racial-dyad (0.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hate crime: Black-on-White</td>
<td>368</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Hate crime: White-on-Black</td>
<td>618</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>White-on-White</td>
<td>775,802</td>
<td>59.2</td>
</tr>
<tr>
<td>White-on-Black</td>
<td>50,276</td>
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<td>Black-on-White</td>
<td>162,896</td>
<td>12.4</td>
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<tr>
<td>Black-on-Black</td>
<td>321,039</td>
<td>24.5</td>
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<td>Victim/offender demographics</td>
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<tr>
<td>Victim age 16-25 (0.0%)</td>
<td>908,309</td>
<td>30.7</td>
</tr>
<tr>
<td>Offender age &gt;30 (6.8%)</td>
<td>546,440</td>
<td>41.7</td>
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<tr>
<td>Situational characteristics</td>
<td></td>
<td></td>
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<tr>
<td>Location (0.0%)</td>
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</tr>
<tr>
<td>Private (ref.)</td>
<td>567,236</td>
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<tr>
<td>Public</td>
<td>743,763</td>
<td>56.7</td>
</tr>
<tr>
<td>Time (0.0%)</td>
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<td></td>
</tr>
<tr>
<td>Day (ref.)</td>
<td>580,621</td>
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<tr>
<td>Night</td>
<td>730,378</td>
<td>55.7</td>
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<tr>
<td>Relational distance (0.0%)</td>
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<tr>
<td>Known</td>
<td>1,082,402</td>
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<tr>
<td>Stranger</td>
<td>228,597</td>
<td>17.4</td>
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<td>Drugs/alcohol (0.0%)</td>
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</tr>
<tr>
<td>No/Don’t know (ref.)</td>
<td>1,142,877</td>
<td>87.2</td>
</tr>
<tr>
<td>Yes</td>
<td>168,122</td>
<td>12.8</td>
</tr>
<tr>
<td>Weapon (2.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>None (ref.)</td>
<td>955,834</td>
<td>72.9</td>
</tr>
<tr>
<td>Gun</td>
<td>117,745</td>
<td>9.0</td>
</tr>
<tr>
<td>Other weapon</td>
<td>237,420</td>
<td>18.1</td>
</tr>
<tr>
<td>Type of victimization (0.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assault (ref.)</td>
<td>1,190,440</td>
<td>90.8</td>
</tr>
<tr>
<td>Sexual assault</td>
<td>17,508</td>
<td>1.3</td>
</tr>
<tr>
<td>Robbery</td>
<td>103,051</td>
<td>7.9</td>
</tr>
<tr>
<td>Data year (0.0%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005 (ref.)</td>
<td>128,918</td>
<td>9.8</td>
</tr>
<tr>
<td>2006</td>
<td>133,186</td>
<td>10.2</td>
</tr>
<tr>
<td>2007</td>
<td>136,503</td>
<td>10.4</td>
</tr>
</tbody>
</table>

(continued)
common type of offense (90.8%), with sexual assault (1.3%) and robbery (7.9%) occurring infrequently.

Analytic Strategy

To predict the likelihood and severity of injury as a function of the covariates in the model, a multinomial logistic regression model was used. This model produces two sets of coefficients, with the first set for predicting minor injury (as compared with no injury), and the second set for predicting major injury (as compared with no injury).2

Because of the large number of cases analyzed, almost every coefficient in the final models is significant at an alpha level less than .001. As such, when considering estimates, effect sizes become much more useful than statistical significance in determining whether individual variables are substantively influencing injury likelihood and/or severity. For ease of interpretation, odds ratios and 95% confidence intervals are reported.3

Results

Table 3 depicts the descriptive statistics for different injury levels (none, minor, major), separated by the racial dyads explored in this study. Black-on-White hate crime represents the highest chance of sustaining any injury (65.5%: 50.8% minor injury and 14.7% major injury) whereas White-on-Black hate crime represents the lowest chance of any injury (40.9%: 34.3% minor injury and 6.6% major injury). For nonhate crime incidents, intraracial offenses are slightly more likely to feature injury than not, with comparable percentages between White-on-White and Black-on-Black (55.7% and

<table>
<thead>
<tr>
<th>Variable name (% imputed)</th>
<th>f</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>135,120</td>
<td>10.3</td>
</tr>
<tr>
<td>2009</td>
<td>135,253</td>
<td>10.3</td>
</tr>
<tr>
<td>2010</td>
<td>133,278</td>
<td>10.2</td>
</tr>
<tr>
<td>2011</td>
<td>129,877</td>
<td>9.9</td>
</tr>
<tr>
<td>2012</td>
<td>133,296</td>
<td>10.2</td>
</tr>
<tr>
<td>2013</td>
<td>124,345</td>
<td>9.5</td>
</tr>
<tr>
<td>2014</td>
<td>121,223</td>
<td>9.2</td>
</tr>
</tbody>
</table>

Note. Ref. is the reference category. Presents pooled estimates rounded to the nearest whole number.
Table 3. Racial-Dyads and Hate Crime by Injury.

<table>
<thead>
<tr>
<th>Injury outcome</th>
<th>All</th>
<th>None</th>
<th>Minor</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f (column %)</td>
<td>f (row %)</td>
<td>f (row %)</td>
<td>f (row %)</td>
</tr>
<tr>
<td>Hate crime: Black-on-White</td>
<td>368 (&lt;.1%)</td>
<td>127 (34.5%)</td>
<td>187 (50.8%)</td>
<td>54 (14.7%)</td>
</tr>
<tr>
<td>Hate crime: White-on-Black</td>
<td>618 (&lt;.1%)</td>
<td>365 (59.1%)</td>
<td>212 (34.3%)</td>
<td>41 (6.6%)</td>
</tr>
<tr>
<td>White-on-White</td>
<td>775,802 (59.2%)</td>
<td>343,594 (44.3%)</td>
<td>374,310 (48.2%)</td>
<td>57,898 (7.5%)</td>
</tr>
<tr>
<td>White-on-Black</td>
<td>50,276 (3.8%)</td>
<td>57,136 (54.0%)</td>
<td>18,918 (37.6%)</td>
<td>4,222 (8.4%)</td>
</tr>
<tr>
<td>Black-on-White</td>
<td>162,896 (12.4%)</td>
<td>78,504 (48.2%)</td>
<td>70,647 (43.4%)</td>
<td>13,745 (8.4%)</td>
</tr>
<tr>
<td>Black-on-Black</td>
<td>321,039 (24.5%)</td>
<td>148,447 (46.2%)</td>
<td>131,174 (40.9%)</td>
<td>41,418 (12.9%)</td>
</tr>
<tr>
<td>Total (column)</td>
<td>1,310,999 (100%)</td>
<td>598,176 (45.6%)</td>
<td>595,448 (45.4%)</td>
<td>117,378 (9.0%)</td>
</tr>
</tbody>
</table>
53.8%, respectively). For interracial incidents not involving bias, White-on-Black crimes are slightly less likely to feature an injury (46.0%), compared with Black-on-White crimes (51.8%).

With regard to injury severity among all cases, minor injury is 5 times as common as major injury (45.4% minor injury vs. 9.0% major injury). In terms of racial dyad outcomes, Black-on-White hate crime emerge as the most likely to feature major injuries (14.7%), followed closely by Black-on-Black crime (12.9%). Black-on-White nonhate crimes (8.4%), White-on-Black nonhate crimes (8.4%), White-on-White crimes (7.5%), and White-on-Black hate crimes (6.6%) are all similarly likely to feature major injury.

Table 4 displays the multinomial logistic regression model for injury outcomes. Note that for both the minor and major injury outcomes, the results are comparisons to no injury. For the racial dyad–hate crime indicators, results are comparisons to White-on-White crimes.

For crimes not involving a bias motivation, compared with White-on-White crimes, Black-on-Black crimes are slightly more likely to result in minor injury (+7%, \( p < .001 \)), but much more likely to result in major injury (+66%; \( p < .001 \)). Black-on-White nonhate crimes are slightly more likely to result in minor injury (+5%; \( p < .001 \)), and also more likely to result in major injury (+23%; \( p < .001 \)). White-on-Black nonhate crimes are less likely to result in either minor (–29%; \( p < .001 \)) or major injury (–17%; \( p < .001 \)). Thus, excluding bias motivations, the likelihood of injury (and injury severity) can vary substantially based on the racial dyad being considered. Overall, before considering bias-motivated crimes, Black offenders are more likely to injure their victims than White offenders are.

In terms of hate crimes, as compared with White-on-White nonhate crime, Black-on-White hate crimes are more likely to involve minor injury (+46%; \( p < .001 \)), and much more likely to involve major injury (+185%; \( p < .001 \)). Conversely, White-on-Black hate crimes are less likely to involve either minor (–43%; \( p < .001 \)) or major injury (–55%; \( p < .001 \)). Thus, similar to the findings involving nonhate crimes, Black offenders are more likely to injure their (White) victims than White offenders are to injure their (Black) victims.

These results suggest that while the likelihood of injury depends both on the racial dyad and whether the crime is motivated by hate, it is mainly driven by the race of the offender. For instance, compared with White-on-White crimes, crimes committed by Black offenders are more likely to feature both minor and major injuries. Furthermore, when involving a bias motivation, Black offenders are much more likely to injure their victims. Conversely, White offenders are less likely to injure Black victims than White victims, especially when motivated by hate. Thus, bias motivations
increase injury outcomes for Black offenders, and reduce such outcomes for White offenders.

In terms of the control variables, while everything is significant \((p < .001)\) given the large number of cases, some variables are substantively more important than others are when predicting injury outcomes. For instance, young victims are more likely to have either minor or major injuries (+18% and +26%, respectively), while older offenders are less likely to injure their victims (−19% minor; −23% major). A public location slightly reduces the chance of minor injury (−2%), but increases the chance of major injury (+25%). Crimes occurring at night or involving drugs/alcohol substantially
increase both the likelihood of either minor (+30% and +25%, respectively) or major injury (+86% and +80%, respectively), while stranger crimes are less likely to involve injury (−15% minor and −9% major).

Perhaps the most dramatic results involve weapon type. That is, compared with no weapon, the presence of a gun or other weapon reduces the likelihood of minor injury (−78% and −24%, respectively), but dramatically increases the likelihood of major injury (+122% and +458%, respectively). Finally, compared with assaults, sexual assaults are much less likely to result in injury (−91% minor and −68% major), as are robberies (−37% minor and −54% major).

**Discussion**

This study sought to explore the role of offender and victim race, with and without the presence of a bias motivation, on victim injury. In doing so, we draw from body of literatures on the role of race in violent encounters (adversary effect, racial animosity) and the literature on hate crime. We find that the racial dyad and presence of bias as a motivator influences the likelihood and severity of injury. The strongest of these effects was in the case of Black-on-White hate crime, which dramatically increases the likelihood of both minor and major injury compared with White-on-White crime. Furthermore, compared with White offenders, Black offenders are more likely to injure their victims regardless of racial dyad or bias. The magnitude of these effects is small for minor injury, but more pronounced for major injury. Conversely, for interracial crimes featuring White offenders and Black victims, both with and without the presence of bias motivation, we find no support that these are more likely to feature injury than White-on-White crimes. In fact, they are less likely to feature injury overall.

Taken together, these results are not indicative of general support for the adversary effect. If the adversary effect was true, we would anticipate that Black victims would be injured more, regardless of the race of the offender. In fact, we find that Black victims are injured less in interracial assaults involving White offenders. Although this may indicate that offenders are not particularly wary of Black victims, it is also possible that the adversary effect is largely limited to the use of lethal force. Several studies find that Black victims are more likely to be killed in a violent incident (Felson & Messner, 1996; Felson & Painter-Davis, 2012). Perhaps Black victims are not met with more nonlethal force because it may, in fact, provide an opportunity for retaliation, but are more likely to be met with lethal force which precludes this as an outcome. Future research should further examine the adversary effect by exploring both nonlethal and lethal forms of violence by the racial dyad of the
offender and victim. Furthermore, in line with research that suggests that Black victims are more likely to be met with weapons (Baumer et al., 2003; Felson & Messner, 1996; Felson & Paré, 2010), future research should explore whether other dynamics of these incidents are indicative of a hesitance to target Black victims. Situational factors such as multiple offenders, the presence of offender “friendly” bystanders, and victim intoxication may point to an adversary effect as they change the dynamics of the violent encounter to reduce the victim’s ability of willingness to retaliate.

The findings of this study correspond to some previous research that finds that Black offenders are more likely to injure their victims (Schnebly, 2002; Tillyer et al., 2011) compared with White offenders. This relationship holds regardless of the race of the victim, but is most pronounced for bias-motivated offenses. This finding, coupled with the findings that (a) the magnitude of the effect for Black-on-Black violence is comparable for minor and larger for major injuries compared with Black-on-White violence, and (b) White offenders are less likely to injure Black victims, overall, suggests that we cannot assume racial animosity as a framework to situate interracial violence. This study explored this theory by comparing racial dyads and nonbias offenses to hate crimes which are explicitly motivated by racial animosity, but future research should explore whether this framework is useful when studying other outcomes, such as target preference. Research has demonstrated that intraracial crime is much more prevalent than interracial crime (e.g., Hipp, Tita, & Boggess, 2011; Parker & McCall, 1999), but much of this is predicated on homogeneous neighborhoods where opportunities for interracial interactions are limited. Therefore, it is possible that racial animosity is not a wholly adequate theory to explain injury, but opportunities being equal, the victim’s race may become a salient factor in predicting victimization. This line of research necessitates a macro- and micro-level approach where neighborhood structures, as representative of interracial interactions and opportunities for interracial offending, are incorporated into micro-level analyses of patterns of offending by offender and victim race. This echoes Sampson and Lauritsen’s (1994) suggestion that research on victimization should adopt a multi-level modeling approach that incorporates demographic and situational characteristics with ecological and community-level factors.

The opposite effects of White-on-Black and Black-on-White hate crime underscores the importance of exploring the variation in hate crime (Messner et al., 2004; Pezzella & Fetzer, 2017). Black-on-White hate crime conforms to our expectations in that these offenses are more likely to be injurious and feature severe injuries. This is also in line with previous research on hate crime that suggests that the outcomes from these assaults are more severe physically (Iganski, 2001). The finding that White-on-Black hate crimes are less likely to
result in injury is surprising, however, this may be due to qualitative differences between these interracial bias-motivated offenses. Built on their previous work (J. Levin & McDevitt, 1993), McDevitt, Levin, and Bennett (2002) propose a typology for understanding hate crime motivations. These types of offenses include thrill-seeking, defensive, mission, and retaliatory. It is possible that White and Black hate crime offenders differ in their motivation and thus the severity of their attacks. Perhaps White-on-Black hate crimes are more likely to be thrill-seeking offenses where the assault is motivated by race, but not deep-seated racial animosity. This would explain why these are less likely to feature injury as the presence of a strong grievance is absent. Conversely, perhaps Black-on-White hate crimes are more likely to be retaliatory. McDevitt and colleagues (2002) define retaliatory hate crimes as those that are in response to a real or perceived hate crime by the victim’s group. Drawing from the literature on racial animosity in general, Black-on-White hate crimes may be a response to historical and current injustices and oppression. Therefore, these offenses would be the result of entrenched animosity and result in greater incident severity. Future research should endeavor to extend even further than exploring demographic variation in hate crime to incorporating information regarding the specific motivations underlying the offenses.

The results of this study pertain to incidents involving a single offender and single victim. Analyses were restricted to exclude multiple offender groups to isolate the theoretical expectations regarding the adversary effect and racial animosity theory. However, a consistent finding in the hate crime literature is that these incidents are more likely to feature multiple offenders, compared with nonbias incidents (Garofalo & Martin, 1993; J. Levin & McDevitt, 1993) and some studies suggest that multiple offenders in general are associated with more injurious outcomes (Melde & Rennison, 2008; Schnebly, 2002). Their inclusion in samples with single offenders may obscure any effects, as the vast majority of incidents involve single offenders. However, it is possible that these conclusions change when multiple offending groups are considered separately, and perhaps not uniformly, across White-on-Black and Black-on-White hate crime. Anti-White crime is more likely in racially heterogeneous neighborhoods where Black offenders have more access and opportunity to victimize White victims. Likewise, previous research suggests that anti-Black crime is more likely in White homogeneous neighborhoods (Lyons, 2008a). Referring to McDevitt and colleagues’ (2002) typology, these situations may be indicative of defensive hate crime where White offenders are “defending their turf.” Taken together, it is possible that the structural conditions that give rise to racially motivated offenses may also influence the dynamics of these encounters, including whether there are likely to be multiple offenders who are similarly motivated. This in turn may
directly impact the likelihood of injury as more force is added to the attack, in which case we would anticipate these degree of injury to be uniform across the dyads, or indirectly through the motivation of the offenders, which may give rise to differential effects.

Although NIBRS is often used in studies of violence generally and hate crime specifically, NIBRS is an official data source, which means that the incident must have come to the attention of the police and must be classified as a hate crime. In general, hate crimes are less likely to be reported and processes through the criminal justice system (Cronin, McDevitt, Farrell, & Nolan, 2007; Lantz, Gladfelter, & Ruback, 2017). Furthermore, some research suggests that, overall, racial minorities are less likely to report to the police (e.g., Feldman-Summers & Ashworth, 1981; Sigler & Johnson, 2002; Zaykowski, 2010). This may be due to apprehension in approaching the police as Blacks are more likely to hold negative opinions of the police with regard to legitimacy (e.g., Desmond, Papachristos, & Kirk, 2016). Although this potential for bias is likely less when considering major injuries, conclusions regarding the overall likelihood of injury may be partially confounded by reporting behaviors. Furthermore, even if an incident comes to the attention of the police, classifying an incident as a hate crime is contingent on law enforcement. Research suggests that perceptions regarding what constitutes a hate crime and the seriousness of the offense are tied to situational characteristics as well as the demographics of the rater (e.g., Lyons, 2008b). Racial animosity and prejudice may also influence what incidents are considered hate crimes. For example, drawing from racial threat theory, King (2007) found that compliance with the HCSA (1990) is inversely related to the size of the Black population in the South. Police may be less likely to classify or report an incident as a hate crime in areas marked with institutionalized racism and a larger Black population. Taken together, these studies suggest that NIBRS, which is reliant on reporting to law enforcement and law enforcement classification, may not provide an accurate depiction of hate crime in that reporting and classification may be tied to racial animosity. Aside from nonclassification related to racial animosity, several studies point to issues related to law enforcement training, narrow cognitive definitions of hate crime, and personal beliefs that motivation should not distinguish offenses as barriers to police reporting of hate crime (Boyd, Berk, & Hamner, 1996; Cronin et al., 2007).

Anti-Hispanic hate crime may be even less likely to proceed through the criminal justice system and appear in official statistics (Lantz et al., 2017; Roberts & Lyons, 2011). NIBRS also lacks data on anti-immigrant hate crimes (Shively et al., 2013). As such, examining anti-Hispanic and anti-immigrant hate crimes is more difficult in NIBRS. Improved measurement of
anti-Hispanic and anti-immigrant hate crimes would be useful in exploring these types of hate crimes in more detail in national-level data sets. This is important, as there are certainly concerns about immigration and crime, and Hispanic hate crime has been rising (Stacey, Carbone-Lopez, & Rosenfeld, 2011). Relevant to this study, the perceptions of Hispanics likely differ from Blacks, in that they are less likely to be seen as dangerous (Unnever & Cullen, 2012), which means they should not elicit the same level of violence if the adversary theory is supported. Furthermore, arguably, Hispanics may not have the same long legacy of hatred and oppression that the Black population has experienced in the United States, which may abate injurious outcomes in line with the racial animosity hypothesis. Future research should extend these analyses to incorporate victim–offender dyads that include Hispanics and Anti-Hispanic hate crime.

Likewise, future research should explore how multiple sources of marginalization shapes victims’ experiences. For example, very little work has been done on the intersection of race/ethnicity and sexual orientation as sources of animus. Although the majority of anti-LGBTQ+ crimes are intraracial, there are nuanced distributions when considered in tandem (Stotzer, 2014). This is especially important given that advocates suggest that transgendered women of color are particularly vulnerable to injurious victimization. It is unclear whether bias motivation against racial and sexual minority victims results in a multiplicative effect on injury.

**Conclusion**

Injurious outcomes vary across racial dyad and with the presence of bias motivation, but the larger patterns indicate that the most salient predictor of injury is the offender’s race. Therefore, this study did not uniformly support the adversary effect, racial animosity theory, or previous research on hate crime. However, it does find that exploring the victim and offender race in tandem is important as these dynamics exert meaningful influences on the outcomes of violent encounters, nuances that are not captured by the overall effects of victim race or comparisons of hate crime to nonbias-motivated offenses. Future research should continue to explore variation within hate crimes and how victim and offender race operate to influence the dynamics of crimes as well as the outcomes associated with violent victimization.

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Notes

1. After excluding cases based on other relevant criteria, missing data on victim or offender race resulted in a total of 26,336 cases (2.0%) being excluded from the analysis. Given the centrality of the racial dyad to the present study, it was decided to not impute values for these cases, and instead remove the entire case from the sample. However, missing ethnicity was more problematic, and given the large proportion of missing data, victims and offenders were considered to be non-Hispanic unless their respective ethnicity variable specifically indicated Hispanic ethnicity. This missing ethnicity assumption accounted for about 30% of the cases for victim ethnicity, and 99% of the cases for offender ethnicity.
2. Results predicting major injury as compared with minor injury as available upon request.
3. Estimates with regression coefficients and standard errors are available upon request.
4. For ease of interpretation, major injury refers to all nonminor injuries (moderate or severe).

References


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