

The influence of event characteristics and actors' behaviour on the outcome of violent events: comparing lethal with non-lethal events

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INTRODUCTION

This paper focuses on conflict situations involving serious violence that ended lethally or non-lethally. We do this by studying the immediate context of the event and the interactions that occurred. Previous research has proposed several explanations for why serious violence sometimes has a lethal ending and sometimes not. Personal characteristics of individuals and situational characteristics – which include event characteristics and actors' behaviour – are seen as important factors to explain lethal outcomes (e.g. Collins 2008; Gottfredson and Hirschi 1990; Weaver *et al.* 2004).

The literature advances several reasons why event characteristics and actors' behaviour are important for the outcome of violent events. First, some event characteristics are more likely to occur in lethal conflicts than in non-lethal conflicts. For example, according to Routine Activity Theory (RAT), event characteristics may shape or facilitate opportunities for (violent) crime (Cohen and Felson 1979). Second, several studies have emphasized the importance of dynamic interactions between actors in conflict-related events, potentially contributing to the escalation into a lethal outcome

(e.g. Collins 2008; Decker 1995; Felson and Steadman 1983; Luckenbill 1977; Von Hentig 1948; Wolfgang 1958).

Research on serious violence that takes into account situational characteristics is surprisingly scarce (Phillips *et al.* 2007b). The studies that do exist focus almost exclusively on the role of offenders (in particular their use of weapons and alcohol), neglecting the role of victim(s) and third parties. Such a one-sided focus creates an incomplete picture of lethal events. Research that directly compares how victims and third parties behave in lethal vs. non-lethal events is virtually nonexistent (Felson and Steadman 1983). Consequently, it remains unclear to what extent event characteristics and actors' behaviour differ in lethal vs. non-lethal events. A better understanding of these variable factors will not only help explicate the key characteristics associated with lethal outcomes of violent events, but may in future also help educate the public on how to act when witnessing violent events, for example.

The present study was specifically designed to fill up the above-mentioned lacunae. Examining the influence of event characteristics and actors' behaviour on lethal vs. non-lethal outcomes of violent events is valuable for at least four reasons. First, in order to investigate the influence of event characteristics and behavioural characteristics, we compared events with a lethal outcome with events that had a non-lethal outcome. To do so we examined Dutch court files, using two selected samples of serious violent events in which offenders were convicted for either attempted or completed homicide. It is a unique feature of this study that attempted and completed homicide events are specifically compared in one database. Second, in order to avoid a one-sided orientation on offenders, we also consider the role of victims and third parties in these events. Third,

since this type of research is challenging for obvious reasons – i.e. victims who have died are not able to tell their story anymore – we went to great lengths to achieve an accurate reconstruction of what happened during these events. This reconstruction is based on in-depth analyses of court files. Fourth, to understand more fully why certain events end lethally and others do not, we combine notions of RAT with notions of Luckenbill’s (1977) theory of situated transactions, thereby illustrating the necessity of integrating the particular ways in which people behave or respond to each other (Sacco and Kennedy 2011). In sum, by comparing event characteristics and behavioural characteristics we aim to achieve a more complete picture of what happens during violent events than earlier studies have provided, thereby contributing to a fuller understanding of why violent events end lethally or non-lethally.

This study will address the following research questions: (1a) To what extent do *event characteristics* differ in lethal vs. non-lethal events?; (1b) To what extent does the *behaviour* of victims, offenders and third parties differ in lethal vs. non-lethal events?; (2) To what extent do (a) *event characteristics* and (b) *behaviour* of victims, offenders and third parties influence the likelihood that serious violent events will end lethally?

PREVIOUS STUDIES

Event characteristics

Previous empirical studies have provided support for the premise that *event characteristics* are important for the outcome of violent events, of which especially time of day, event location, substance use and the presence of third parties are considered important.

First, Weaver *et al.* (2004) showed that when events took place during day time and in private settings, the likelihood that violent events ended lethally increased. Furthermore, many previous studies not only found a link between alcohol use by *offenders* and (lethal) violence – and to a lesser extent between drug use and (lethal) violence (e.g. see review Darke 2010) – but some also found substance use by *victims* and lethal vs. non-lethal outcomes to be connected (e.g. Felson and Steadman 1983). Although the relationship is complex, alcohol use by offenders/victims may be linked to involvement in (lethal) violent events due to the fact that it may (1) reduce inhibitions, (2) affect one’s self-control, (3) contribute to more aggressive or violent behaviour, (4) influence involvement in risky situations by affecting one’s judgement of a situation (5) affect feelings of courage as well as (6) one’s physical or motoric functions (e.g. Felson and Staff 2010; Pridemore and Eckhardt 2008). Felson and Steadman (1983) found that victims of lethal violence were more likely to be under the influence of alcohol or drugs than victims of non-lethal violence. However, evidence is inconsistent as to whether offenders of lethal violence are more likely to be under influence of substance than offenders of non-lethal violence (e.g. DiCataldo and Everett 2008; Dobash *et al.* 2007; Felson and Steadman 1983).

In addition, although there is little research on the presence of third parties making an explicit distinction between lethal vs. non-lethal events, some studies have shown that the majority of assaults and homicides (approximately 70 percent) occur in the presence of a third party (Felson and Steadman 1983; Luckenbill 1977; Planty 2002), and that third parties may influence the severity of events. However, it remains unclear

whether the presence of third parties has an escalating or de-escalating effect (e.g. Collins 2008; Decker 1995; Luckenbill 1977; Phillips and Cooney 2005).

Lastly, findings from previous research on non-lethal violence showed that if more than one third party is present, the likelihood of intervention decreases, which is often ascribed to the 'bystander-effect' in which especially the diffusion of shared responsibilities plays a role (e.g. Latane and Darley 1968). However, others found that an increase in group size can either encourage or discourage intervention by third parties, mostly depending on the relationship between present third parties (e.g. Levine and Crowther 2008).

Actors' behaviour

Previous empirical studies have provided some support for the premise that *actors' behaviour* can play a central role in the outcome of events, especially when it comes to victim precipitation, weapon use by victims and offenders, and whether and how third parties intervene.

First of all, in his work on victim precipitation, Wolfgang (1957, 1958) was one of the first to provide empirical evidence that victims can contribute to their own death by being *the first* to show a gun or knife, or the first to use physical violence (in 26% of homicide cases). Curtis (1974) found that victim precipitation was more common in homicide (22%) and aggravated assault (14%) than in other violent offences, such as forcible rape and robbery. One of the few researchers who directly compared victims' behaviour in lethal vs. non-lethal events, showed that victims who died were more likely to have been aggressive than those who survived the event. For instance, victims of lethal

violence were more likely to (1) attack the identity of offenders (e.g. insults or accusations), (2) threaten offenders, (3) use physical violence, and (4) display or use a weapon (of any type) than victims of non-lethal violence (Felson and Steadman, 1983).

Furthermore, previous research have shown that the type of weapon used in violent encounters – especially guns and knives – is crucially important in predicting lethal outcome, which primarily applies to offenders (e.g. Felson and Messner 1996; Weaver *et al.* 2004). However, other studies found that weapons used by victims can also contribute to the outcome of events (Felson and Steadman 1983; Phillips *et al.* 2007b). All in all, the literature provides some evidence that the more aggressive the victim, the more likely the offender will show aggression as well.

Finally, while very little research has been done on the influence of third parties, some studies have found that how third parties behave may also be crucially important for the outcome of events, – varying from remaining inactive, settling or mediating, to aggravating or taking sides in the conflict – possibly depending on the relationship with victim or offender and the presence of others (e.g. Collins 2008; Decker 1995; Levine *et al.* 2011; Luckenbill 1977; Phillips and Cooney 2005). Although research has yielded mixed results as to whether mediation affects the severity of events (e.g. see Felson and Steadman 1983; Phillips and Cooney 2005), taking sides was found to strongly affect the likelihood that conflicts will turn violent (Phillips and Cooney 2005). For example, Collins (2008) argued that the emotional barrier of fear/tension to hurt someone generally inhibits people to commit violence, providing empirical evidence for the notion that encouragements by third parties is one way to overcome this barrier of fear/tension for violence to occur.

EXPLAINING LETHAL OUTCOMES OF VIOLENT EVENTS

In the existing literature, there are several explanations for why certain violent events end lethally and others do not, of which notions of Routine Activity Theory (RAT) (Cohen and Felson 1979) and Situated Transaction Theory (Luckenbill 1977) are considered of crucial importance.

RAT offers important insights into the effects of *event characteristics* on violent outcomes. RAT postulates that crimes occur when three necessary factors converge in time and space, namely (1) a motivated offender, (2) the presence of a suitable target/victim, and (3) the absence of a capable guardian (Cohen and Felson 1979). Daily routines of individuals bring offenders and victims together. RAT thus illustrates the importance of studying the influence of offenders, victims and third parties in combination (Felson 1993; Weaver *et al.* 2004). Although critics have argued that RAT pays insufficient attention to the dynamic interaction between offenders and victims in explaining crime (Meier *et al.* 2001), Felson (1993) was one of the first to argue that RAT could also be applied to explaining violent events. Inspired by the social interactionist approach, he theorized that by considering any aggressive behaviour as goal-oriented (i.e. using violence in reaction to perceived wrongdoing), Routine Activity Theory could also be applied to dispute-related violence.

Luckenbill's Situated Transaction Theory is likewise relevant when explaining lethal violence as a chain of interaction. Luckenbill (1977) postulates that a homicide event should be seen as the result of a dynamic interaction-process between offender, victim, and possibly third parties: a 'situated transaction'. Perceived insults – which

threaten one's honour or face – take a prominent position in his theoretical framework. Building on the work of Goffman (1967), Luckenbill emphasises that violence often serves to save or maintain face and reputation or to show character. Luckenbill distinguishes several stages in which homicide events develop, starting with an 'opening move' and ending in lethal violence, which is often a joint product of offender and victim. It is not always clear in advance who will end up the victim and who the offender. Luckenbill only studied interactions in lethal events, without making comparisons to non-lethal events. Moreover, Situated Transaction Theory has been criticised for neglecting the role of location and time of events (Weaver *et al.* 2004). The present study therefore combines and integrates Luckenbill's work with RAT in order to more fully understand why some events end lethally and others do not.

Integrating notions of RAT with Situated Transition Theory

Although RAT and Situated Transition Theory do not explicitly differentiate between lethal and non-lethal events, we will attempt a more thorough understanding of the outcome of violent events using RAT as a basic framework and incorporating insights from Situated Transaction Theory. We do so, by following the basic assumptions of RAT: that, for serious violence to occur, it is necessary that a motivated offender, a suitable target, and the absence of capable guardians converge at a certain time and location.

Luckenbill adds to this that the particular ways in which people behave or respond to each other are also crucial. First, the concept of *motivated offender* may be relevant by presuming – as Felson (1993) did – that the motivation of offenders is not always constant but rather shaped by the interaction between offenders and victims (Felson

1993). Offenders may use (lethal) violence as a response to perceived wrongdoing or perceived insults to obtain justice, to maintain face or reputation, or to demonstrate a stronger character (Felson 1993; Luckenbill 1977). We expect that when victims precipitate during events, offenders may be more likely to do greater harm (i.e. killing their victims), because offenders may be more likely to retaliate in response to victims' behaviour. We suggest that the more aggressive the victim's behaviour, the more aggressive the offender will be (Felson and Steadman 1983). Also, it may be possible that offenders are more motivated to do greater harm if they are under the influence of alcohol. For instance, intoxicated offenders may be more sensitive to perceived insults or less able to restrain themselves when they feel aggrieved. We therefore expect that offenders under influence of alcohol may be more likely to be involved in lethal vs. non-lethal events.

Second, some victims may be considered *suitable targets* as they may contribute to their own death, for instance when under the influence of alcohol, by showing a weapon or by provoking offenders. Victims under the influence of alcohol may be more likely to die during the event, as they may be more prone to say or do something that provokes or insults offenders, and may be less able to defend themselves when attacked (Wolfgang 1957). Also, in response to perceived wrongdoing or perceived insults, offenders may be more likely to kill their victims when victims display or show a weapon during the event. Thus, we expect that some victims may be considered to be a 'more suitable' target, depending on how they behave during events.

Further, third parties present during an incident may serve as *capable guardians*, shaping offenders' behaviour – including deterring them. Therefore, we expect that the presence and/or behaviour of third parties may possibly prevent an escalation into lethal

violence. Finally, derived from RAT, we expect that daily routines and lifestyles of individuals cause offenders and victims to converge. Lifestyle-indicators often considered in the literature are demographic characteristics such as age, gender and ethnicity (e.g. Hindelang *et al.* 1978). We expect that people with certain demographic characteristics are more at risk of involvement in lethal than non-lethal events. Furthermore, as victim-offender relationships and subtypes of conflicts are usually considered important for understanding the outcome of violent events (e.g. Weaver *et al.* 2004; Wolfgang 1958), we also take these factors into account.

Hypotheses derived from our integrated theoretical framework and previous studies

Based on the proposed integrated theoretical framework and findings from previous studies, we expect that event characteristics, actors' behaviour and background characteristics of victims and offenders can contribute to the outcome of violent events. This results in the following hypotheses.

Considering the influence of *event characteristics*, hypothesis 1 states that if events take place at home or in the morning, the likelihood of a lethal outcome increases. Hypothesis 2 is that alcohol use by victims increases the likelihood of a lethal outcome; hypothesis 3 presumes that alcohol use by offenders increases the likelihood of a lethal outcome; and hypothesis 4 states that the presence of third parties decreases the likelihood of a lethal outcome. Finally, hypothesis 5 postulates that the greater the number of third parties present, the lower the likelihood of a lethal outcome.

Furthermore, concerning *actors' behaviour*, hypothesis 6 presumes that victim precipitation increases the likelihood of a lethal outcome; according to hypothesis 7

displaying or using a weapon by victims increases the likelihood of a lethal outcome; and hypothesis 8 states that displaying or using a firearm by offenders increases the likelihood of a lethal outcome. Hypothesis 9a postulates that attempts to settle the conflict by present third parties decreases the likelihood of a lethal outcome. Hypothesis 9b presumes that inactivity or partisanship by present third parties increases the likelihood of a lethal outcome.

No hypotheses were included on the influence of demographic characteristics, victim-offender relationship or subtypes of conflicts. These will serve as control variables.

DATA AND METHOD

Selected samples of lethal and non-lethal events

This study is based on Dutch court files using two selected samples of serious violent events from The Hague and Rotterdam (two of the largest cities in the Netherlands¹): (1) a selected sample of 126 lethal events involving murder or manslaughter in these cities (period 2000-2009²), and (2) a selected sample of 141 non-lethal events involving ‘attempted manslaughter’ or ‘attempted murder’ in the same cities (period 2005-2009). Manslaughter refers to *intentional* killings; murder refers to crimes where a person kills someone intentionally and *with premeditation*³.

For the purpose of this study, we focus on cases that met the following five inclusion criteria: (1) the case was registered in court district The Hague or Rotterdam, (2) the offender had been *convicted* for homicide or attempted homicide (this was done to be sure that the offender was guilty of committing the crime and also because convicted cases are generally more complete than cases that are still pending), (3) the event

involved a single offender and a single victim, (4) victim and offender were at least 12 years of age⁴ at the time of the event, and (5) the court file was present⁵ at the court districts at the time of the data collection.

For the selection of the first sample (i.e. lethal events), we used data from the national *Dutch Homicide Monitor*; for the second sample (i.e. non-lethal violent events), we used prosecution data from the Dutch Public Prosecutor (for more information about these sources, see Appendix).

Using the Dutch Homicide Monitor, we first selected all *lethal events* that were committed in The Hague and Rotterdam that met our first four inclusion criteria. This resulted in a total 608 cases, of which all court files were requested. Of these 608 cases, a total of 126 lethal cases were ultimately included in this study. Most of the requested files that were ultimately not included in this study concerned files that were not present at the district courts at the time of the data collection (e.g. cases in appeal, or because the files had been requested by other authorities).

Concerning *non-lethal violence*, it was not possible to directly select cases that met all our selection criteria, because there is no dataset available for non-lethal events in the Netherlands, comparable to the Dutch Homicide Monitor. We were therefore forced to adjust our strategy by using prosecution data on all 1197 persons who were prosecuted in The Hague or Rotterdam for non-lethal violence (period 2005-2009). Of these individuals, we randomly selected a total of 478 persons and requested their court files. Then, at the court district, we manually considered these cases to determine which met all of our inclusion criteria. Eventually, 141 non-lethal cases that met all our inclusion criteria were scored. Most cases that were not included in this study concerned multiple

offender events or cases in which there was a conviction for a less serious crime (e.g. (aggravated) assault).

The final selected sample size comprised data on 267 serious violent events of which 126 had a lethal outcome (i.e. homicide events), and 141 had a non-lethal outcome (i.e. attempted homicide events)⁶.

Court files

For our purpose, examining court files is particularly valuable because victims who have died can no longer tell their side of the story. Also, other sources such as official criminal records often lack detailed information on event characteristics and actors' behaviour.

Court files contain rich information relevant for this study, including toxicological reports, eyewitness reports, outcomes of neighbourhood investigations, police reports, autopsy/coroner's reports, trace evidence, trial investigation reports, statements of the offender – and in case of a surviving victim – victim statements (cf. Felson and Steadman 1983; Luckenbill 1977). Thus, these files include much more than just offender statements. The in-depth, time-consuming examination of court files (usually consisting of more than one hundred pages), enabled us to reconstruct in detail what happened during these conflicts. We compared and complemented information using all kinds of documents included in the files, rather than relying only on the statement of offenders (cf. Luckenbill 1977). This also served to mitigate the drawback of lacking statements by the victim of lethal events. In case of contradictory information, we heeded a hierarchy based on the reliability of the documents. Thus, we primarily relied on more objective sources that included expert assessments such as trial investigations, trace evidence, toxicological

reports, and psychological reports. Overall, the offender statement was considered to be the most subjective source.

All data were systematically collected (in the period February to June 2011) using the *Scoring Instrument (attempted) Homicide (SIH)* (XXXX 2012) – developed specifically for this study – consisting of almost 400 variables with detailed coding instructions. Coding was conducted by eight research assistants who were specifically trained for this task. In pairs, a total of 22 files were randomly selected and double scored. This resulted in an inter-rater reliability rate of .78⁷, indicating a substantial agreement between coders.

Particular information that was not explicitly mentioned in these files, for instance the presence of third parties, was recoded as ‘absent’, assuming that crucial information would have been mentioned in the file had it been relevant.

Description of the total selected sample

Of the total selected sample size (both selected samples together), victims and offenders were predominately male (70 and 91%, respectively), on average in their thirties (M=34.6, SD=14.64, range 12-91 and M=31.2, SD=11.91; range 12-75, respectively), and unlike victims⁸, most offenders were not born in the Netherlands (52 and 45%, respectively).

Demographic differences in gender and age were found between individuals in the two selected samples: female victims (41 and 20%, respectively; $p < .01$), male offenders (95 and 88%, respectively; $p < .05$), on average older⁹ victims (37.5 and 32.2, respectively) and older¹⁰ offenders (34.8 and 28.0, respectively) were more likely to be involved in lethal events compared to non-lethal events. Other differences in background

characteristics concerned the victim-offender relationship¹¹ and subtypes of conflicts¹²: in lethal events it was more likely that the victim and offender knew each other (90 and 77%, respectively; $p < .01$) or even to have an intimate relationship (38 and 17%, respectively; $p < .01$). Conflicts were also more likely to be domestic-related (54 and 34%, respectively; $p < .01$) but less likely to be related to arguments/altercations (36 and 54%, respectively; $p < .01$), when compared to non-lethal events.

Measurements

Dependent variable

Our dependent variable consisted of a dichotomous variable indicating whether the violent event had a lethal outcome (1) or a non-lethal outcome (0).

Independent variables

Before discussing our independent variables, we need to clarify the distinction between event characteristics and behavioural characteristics. To determine whether a characteristic should be considered an event characteristic or a behavioural characteristic, we compared the crime scene to a play. A play usually requires a decor and actors. Event characteristics can be compared to the decor in which scenes takes place. Actions by actors during the play are seen as behavioural characteristics. Whereas the ‘decor’ (i.e. event characteristics such as alcohol use) is fairly static during the entire play, the ‘actions’ that take place in the specific decor are dynamic and changeable (i.e. behavioural characteristics such as displaying a weapon).

Independent variables covering event characteristics

Six independent variables covered *event characteristics* (see Table 1 and 3): (1) *event location* (which comprises the variables of home (regardless of who lived in the house), street/parking lot, cafe/bar/restaurant, and other locations; reference category: home), (2) *time of the event* (consisting of the variables morning (06:00-12:00h), afternoon (12:00-18:00h), evening (18:00-24:00h) or night (00:00-06:00h); reference category: morning), (3) *alcohol use by victim* (coded as 1 if this was mentioned in the files – regardless of the amount consumed – and as 0 if it was not mentioned), (4) *alcohol use by offenders* (coded as 1 if this was mentioned in the files – regardless of the amount consumed – and as 0 if it was not mentioned), (5) *the presence of third parties* (1=present, 0=not present), and (6) *the number of third parties* (i.e. a continuous variable). Largely based on the study by Phillips and Cooney (2005), third parties were defined as persons – other than the offender and victim – who were present and witnessed the event.

Additionally, other event variables were also presented in our descriptive statistics as these provide valuable details (Table 1), but were ultimately excluded from our explanatory analysis (Table 3) because of partial overlap with other variables, because the sequence of behaviour was not clear, or because they were too detailed. Because of this, for event characteristics the following two variables served only as descriptive variables (Table 1): *offender carried a firearm/knife*, and *relationship third parties-offender-victim* (consisting of three dichotomous variables: (a) at least one had ties with both victim and offender, (b) at least one had ties with either victim or offender, but none had ties with both and (c) none had ties with either victim or offender.

Independent variables covering behavioural characteristics

To reconstruct what happened during the event, four independent variables covered indirect measures of *behavioural characteristics*, all of which were dichotomous (see Table 2 and 3). These variables were coded as 1 if the situation was applicable and as 0 if it was not: (1) *displaying or using a weapon by victim* – excluding hands and feet (definition based on the study by Felson and Steadman (1983)), (2) *displaying or using a firearm by offender* (definition based on the study by Felson and Steadman (1983)), (3) *victim precipitation* (largely based on studies by Wolfgang (1957, 1958)), – defined as whether the victim was *the first* in the event to show a firearm or a sharp weapon, or the first one to use physical violence, and (4) *behaviour of present third parties* (consisting of three dichotomous variables: partisanship (i.e. at least one took sides), settlement (i.e. at least one attempted to settle, but none took sides), and inaction (i.e. none of the third parties intervened); reference category: absence of third parties)).

Although excluded in our explanatory analysis for reasons mentioned earlier, the following five behavioural variables were also included in our descriptive statistics – serving as descriptive variables – because these provide additional details about violent events (Table 2): (1) *insults by victim/offender in some way* (e.g. verbal and non-verbal insults such as calling names, spitting in the face or insulting gestures (coded as 1 if this was mentioned in the files and as 0 if it was not), (2) *threats by victim/offender* (to use physical violence/to kill/ to show a knife or firearm), (3) *physical violence by victim/offender*, (4) *offender's modus operandi causing the most severe injury* (consisting of several dichotomous variables including strangulation, firearm, sharp instrument, hitting/kicking/pushing with or without an object and other), (5) *first behaviour by victim*,

which was constructed by several separated variables (varying from starting the conflict, being the first to insult, being the first to threaten, being the first to threaten with a firearm or knife to being the first to use physical violence).

Control variables

Finally, the demographic variables of age (continuous), gender and birth country (1=born in the Netherlands; 0= born outside the Netherlands) served as control variables. Also, other background characteristics were *victim-offender relationship* (1=non-strangers; 0=strangers)¹³ and *subtypes of conflict* (consisting of several dummy variables indicating whether the conflict was either related to arguments/altercations, domestic conflicts (i.e. conflicts between those involved in an intimate/family relationship or rivals in love), felony-related or other reasons; the subtype arguments/altercations – excluding those involved in an intimate/family relationship, rivals in love or those involved in the criminal milieu –, served as our reference category).

RESULTS

Regarding research question 1a – To what extent do *event characteristics* differ in lethal vs. non-lethal events? – the results of our descriptive analyses indicate that lethal and non-lethal events differed substantially with respect to event characteristics (Table 1). Compared to non-lethal events, in lethal events it was more likely that: events did not occur in the street or parking lot; offenders carried a firearm; third parties were absent, or a lower number of third parties were present, or if present, third parties had no ties with either offender or victim.

Next, we conducted descriptive analyses to answer research question 1b – To what extent does *actors' behaviour* differ in lethal vs. non-lethal events? Table 2 indicates that victims who died were more likely to have insulted and to have threatened the offender than those who survived. Offenders of lethal incidents were less likely to have insulted victims and to have used physical violence compared to their counterparts. However, offenders of lethal events were more likely to have displayed or used a firearm and to have caused the most severe injury with a firearm compared to their counterparts. Then, zooming in on whether victims could be considered initiators of certain specific behaviour during the events, Table 2 shows that victims who died were more likely to have precipitated than those who survived the event. Furthermore, in lethal events it was more likely that (1) the conflict was started by victims, or by victim and offender jointly, (2) victims were the first to have insulted, or to have threatened the offender, and (3) victims were the first to have threatened with a firearm or sharp instrument than in non-lethal events. Finally, third parties were less likely to have intervened in lethal events than in non-lethal events. No significant relationship was found between the type of intervention (i.e. settlement or partisanship) and the outcome of events. These results show that both event characteristics and actors' behaviour matter because they differ in lethal vs. non-lethal events. Next, we test our hypotheses to determine whether these factors are also important in predicting lethal vs. non-lethal outcomes.

[TABLE 1 AND 2 HERE]

MULTIVARIATE ANALYSES

We used logistic regression to answer research questions 2a and 2b – To what extent do *event characteristics* and *actors' behaviour* influence the likelihood that serious violent events end lethally? Table 3 shows the results of our analyses presented in four separate models¹⁴.

Our control variables were included in all models, and we gradually added either our event characteristics variables (Model II) or behavioural variables (Model III), so as to first examine their effects separately. Finally, in the last model (Model IV) we added event characteristics variables and behavioural variables simultaneously to examine the effects of these variables together.

All models show that male offenders had a higher likelihood to be involved in lethal events compared to female offenders: the odds of lethal vs. non-lethal outcomes increased by a factor of 15.136 if male offenders were involved (Model IV). Although Model II shows a negative relationship between country of birth of victims and the outcome of violent events, this relationship disappears in the other models. Model IV shows that the odds of lethal vs. non-lethal outcomes increased by a factor of 4.385 if it concerned a domestic-related conflict, compared to conflicts related to arguments/altercations (i.e. the reference category for subtypes of conflict).

Event characteristics

In testing our hypotheses concerning the influence of event characteristics on lethal vs. non-lethal outcomes of violent events, the results show – in contrast to hypothesis 1 – that if events took place at home or during the morning (i.e. the reference category for

location and time of the event), the likelihood of a lethal outcome did not increase or decrease compared to events that took place outside the home or during other time periods. In line with hypothesis 2, Model II and IV show that alcohol use by victims did increase the likelihood of a lethal outcome: the odds of a lethal vs. non-lethal outcome increased by a factor of 4.141 if victims were under influence of alcohol during the event compared to victims who were not (Model IV).

In contrast to hypothesis 3, alcohol use by offenders did not influence the likelihood of a lethal vs. non-lethal outcome. In line with hypothesis 4, we found that if third parties were present, the likelihood of a lethal outcome decreased. The results indicate – in contrast to hypothesis 5 – that the greater the number of third parties present, the higher the likelihood of a lethal outcome. With each additional third party present, the odds of a lethal vs. non-lethal outcome increased by a factor of 1.308 (Model IV).

Behavioural characteristics

In testing our hypotheses concerning the influence of behavioural characteristics on the outcome of violent events, we found – in line with hypothesis 6 – that victim precipitation had a positive significant effect on the likelihood of a lethal outcome (Model III and IV). The odds of a lethal vs. non-lethal outcome increased by a factor of 4.391 for victims that precipitated during the event compared to those who did not precipitate (Model IV). In contrast to hypothesis 7, displaying or using a weapon by victims did not significantly influence the lethality of violent events. However, in testing hypothesis 8, we did find that if *offenders* displayed or used a firearm during events, the likelihood of a lethal outcome increased (Model III and IV). Here, the odds of a lethal vs.

non-lethal outcome increased by a factor of 10.728 if offenders displayed or used a firearm during the event (Model IV).

In line with hypothesis 9a, we found that if present third parties mediated during the events, the likelihood of a lethal outcome decreased in comparison to events where no third parties were present (i.e. the reference category for behaviour of present third parties) (Model III and IV). Finally, in contrast to hypothesis 9b, we found that if present third parties remained inactive or took sides during the events, the likelihood of a lethal outcome decreased in comparison to events where third parties were absent (Model III and IV).

Overall, these results show that the likelihood of a lethal outcome of a violent event increased in events involving: 1) alcohol use by victims, 2) absence of third parties, 3) a greater number of third parties present, 4) offenders displaying or using a firearm, and 5) victim precipitation. Thus, empirical evidence was found to support the hypotheses that if victims were under the influence of alcohol (Hypothesis 2), if victim precipitation was involved (Hypothesis 6) or if offenders displayed or used a firearm (Hypothesis 8) that the likelihood of a lethal outcome increased. Furthermore, support was found for the hypotheses that the presence of third parties (Hypothesis 4) and attempts to settle the conflict by present third parties (Hypothesis 9a) decreased the likelihood of a lethal outcome. However, no support was found for the hypotheses that the likelihood of a lethal outcome increased if events took place at home or in the morning (Hypothesis 1), if offenders were under the influence of alcohol (Hypothesis 3), if victims displayed or used a weapon (Hypothesis 7) or if third parties remained inactive or showed partisanship (Hypothesis 9b). In addition, no support was found for

Hypothesis 5 that the greater the number of third parties present, the lower the likelihood of a lethal outcome.

[TABLE 3 HERE]

DISCUSSION AND CONCLUSION

This study compared several event characteristics and actors' behaviour in lethal vs. non-lethal events, and examined the extent to which these factors influence the likelihood of a lethal outcome. By systematically studying Dutch court files of two unique selected samples of serious violent events, which we carefully reconstructed, we found pronounced differences between lethal vs. non-lethal events with respect to event characteristics and, in particular, actors' behaviour. Also, several situational characteristics were significantly predictive of the lethality of violent events, especially concerning alcohol use by victims, firearm use by offenders, victim precipitation and the absence of third parties.

This study has made numerous contributions to research on serious violence. First, our study emphasises the importance of conducting situational research. Second, it stresses the value of *comparing* situational characteristics between lethal vs. non-lethal events. Third, it demonstrates the relevance of comparing attempted and completed homicide events, as important differences emerged. This may yield new angles from which to better understand why certain events end lethally and others do not. The study also shows that studying lethal vs. non-lethal events should take a more dynamic approach, avoiding a one-sided focus on offenders: not only offenders' behaviour matters, but victims and third parties also play a crucial role in the outcome of violent events.

Luckenbill (1977) already demonstrated that this applies to lethal violence, and we have expanded his work by demonstrating that this conclusion still holds when directly comparing lethal vs. non-lethal events. Furthermore, we not only show how notions of RAT (Cohen and Felson 1979) can be applied to explain the occurrence of serious violence, but the study's most important theoretical contribution is that it expands RAT notions by incorporating a fourth necessary condition for serious violence to occur. Building on Luckenbill's Situated Transaction Theory, our study suggests that while motivation and opportunity (suitable target and absence of capable guardians) are necessary (as postulated by RAT), we should also incorporate a fourth element: namely the particular ways in which people behave or respond to each other in certain specific circumstances (Sacco and Kennedy 2011). The study moreover demonstrates that Wolfgang's concept of victim precipitation (1957, 1958) is still relevant today, and may even provide a bridging concept to integrate offender theories and victim theories in situational research (Miethel 1985). We have to point out that studies of victim precipitation have received severe criticism – especially from feminist scholars – and have become a rather sensitive concept due of the dangers of victim blaming (Muftic *et al.* 2007). In particular, one of the criticisms was related to how the concept of victim precipitation was operationalized (e.g. Fattah 1991), especially because other researchers expanded the definition of victim precipitation and applied it other crimes such as rape (e.g. Amir 1967). However, in contrast to several previous studies (e.g. Amir 1967), in this study – as proposed by researchers such as Fattah (1991), Muftic *et al.* (2007) and Polk (1997) – we use a rather strict/narrow definition to measure the concept victim precipitation, relying on the original definition formulated by Wolfgang (1957, 1958).

As such, rather than blaming or making accusations towards victims, the *behaviour* of victims was examined to understand more fully why certain violent events end lethally and others do not. Overall, the insights of this study may possibly serve as new angles to better understand why certain events end lethally while others do not, and may help educate the public to avoid dangerous situations and prevent victimisation (Miethe 1985).

The study has found that both event characteristics and actors' behaviour are influential factors that contribute to lethal vs. non-lethal outcomes, although some outcomes were not always what we expected.

Concerning the influence of *event characteristics*, the study demonstrates – in line with our expectations – that it matters whether victims were under the influence of alcohol and whether a third party is present during the event. The number of third parties present was also found to play a role, but in an opposite manner to what we expected. One possible explanation for the finding that alcohol use by victims matters is that intoxicated victims may be more prone to say or do something that provokes or insults the offender, and are subsequently less able to defend themselves when attacked (Wolfgang 1957), thus making them – according to RAT – a more suitable target. We furthermore concur with RAT that third parties may serve as capable guardians, shaping offenders' behaviour – including deterring the offender – and may even prevent an escalation into lethal violence.

However, it also emerged that not all event characteristics are important for the outcome of violent events. Contrary to what we expected and in contrast to the results by Weaver *et al.* (2004), the likelihood of a lethal outcome neither increased nor decreased for events that took place at home or during the morning. When controlled for other

factors, a similar result was found for the influence of alcohol use by offenders, which is inconsistent with results by DiCataldo and Everett (2008) and Dobash *et al.* (2007), but in line with results by Felson and Steadman (1983).

Concerning *actors' behaviour*, we found – as expected – that if victims precipitated during events and offenders displayed or used a firearm during events, the likelihood of a lethal outcome of violent events increases. Also, when third parties were present, they serve as capable guardians – regardless of whether they behaved passively or actively compared to events where no third parties were present; a result which was partially in line with what we expected.

Our results suggest – in line with theoretical notions and earlier empirical studies – that victims who are killed tend to have played an active contributing role initiating certain behaviour that eventually contributed – at least partially – to the escalation of lethal violence (Luckenbill 1977; Wolfgang 1958). One explanation for our result is that if victims precipitate, offenders may be more likely to retaliate in reaction to victims' behaviour, suggesting that the more aggressive the victim, the more aggressive the offender (Felson and Steadman 1983). More specifically and applying RAT, offenders may use violence as a reaction to perceived wrongdoing (i.e. victim precipitation), to save face or to obtain justice (Felson 1993). Similarly, and in accordance with Luckenbill's theory, some offenders may use violence as a response to perceived insults (facilitated by victim precipitation) to save face, protect their reputation or to show a stronger character. Some offenders may be more sensitive to insults, or more willing to inflict injury by using a more lethal weapon when they are precipitated by their victims. However, these explanations should be interpreted with care as we did not measure offenders' intentions

(Felson and Messner 1996). Also, it is far from clear why some victims have initiated certain behaviour since several explanations are possible. This finding does not point to the victim, but rather supports the notion, for example, that it is not always clear in advance who will end up as victim or as offender in violent events (Felson 1993; Luckenbill 1977; Wolfgang 1958). It has to be taken into account that one explanation for victims' behavior may be related to power differences in physical strength and size, in particular when it concerns male offenders and female victims. For example, some female victims may initiate certain behaviour – perceived by offender as offensive and classified by researchers as victim precipitation – as a strategy to counter the strength or stature of a male offender. Put differently, it may be possible that victims behave as such, for instance, in response to the threat of violence or because they are more frightened due to their greater vulnerability. Caution is therefore warranted in the interpretation of these results.

All in all, our study thus provides overall support for the theoretical notion that a lethal outcome of a violent event is often a joint product of at least a victim and an offender (Luckenbill 1977), in which the motivation of offenders is often shaped by victims' behaviour (Felson 1993). Nonetheless, in contrast to the results of Felson and Steadman (1983) and contrary to what we expected, we found that displaying or using a weapon by victims does not influence the likelihood of a lethal outcome, even when controlling for other factors. This hypothesis may still hold for other types of crimes, however.

To conclude, this study has identified several crucial factors in the immediate context and actors' behaviour during events that influence the lethality of violent events.

Obviously, a great deal of research remains to be done in this area. Based on the present study, we suggest that future studies pay more attention to both event characteristics and actors' behaviour to more fully understand how these factors affect the outcome of violent events.

Aside from the insights that the study has yielded, several limitations should be noted. First, this study solely relied on data derived from court files, whereas, ideally, future research should incorporate multiple data sources, for instance incorporating data from interviews with offenders, using case control methods (e.g. Phillips and Maume 2007a). Second, our results may have suffered some distortion given the fact that court files of non-lethal events generally contain a statement by the victim, while such a statement is obviously missing in all lethal cases. However, this does not greatly affect our overall conclusion, thanks to our extensive efforts to accurately reconstruct what happened during the event. A third limitation concerns our selection criteria. For example, since our selected samples only consist of one-on-one cases, our findings cannot be extrapolated to cases involving multiple offenders and/or multiple victims. It would be a step forward for future research to also include such cases, to thereby determine the generalizability of our findings. This study furthermore calls for additional research that focuses more closely on different subtypes of (attempted) homicide to examine the role of event characteristics and actors' behaviour in more detail. Finally, where we mainly focused on situational factors to explain the outcome of violent events, the role of other factors remains another area for further study – for example and especially the role of offenders' criminal propensity (e.g. Gottfredson and Hirschi 1990).

In sum, our study emphasises the need for broad, well-designed and open-minded research to further examine the influence of situational factors on lethal vs. non-lethal outcomes, preferably by also including information on the background of offenders and victims, including criminal propensity. As to the situational dynamics, we argue that additional research should also examine the sequences of actions between all parties present in lethal vs. non-lethal events, in which Luckenbill's theory (1977) may be expanded to both lethal and non-lethal events.

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TABLES

Table 1: Event characteristics in lethal vs. non-lethal events

	Lethal events (N=126) (%)	Non-lethal events (N=141) (%)	p
<i>Event location</i> ¹⁵			
Home	56	44	ns
Street or parking lot	25	41	**
Cafe, bar, restaurant	7	6	ns
Other	12	9	ns
<i>Time of the event</i> ¹⁶			
Morning	18	16	ns
Afternoon	22	17	ns
Evening	39	43	ns
Night	21	24	ns
Alcohol use by victim	26	20	ns
Alcohol use by offender	30	35	ns
Offender carried a firearm	25	6	**
Offender carried a knife	24	43	**
Presence of third parties	56	82	**
<i>Average number of third parties</i> ¹⁷	2.40 (SD=5.56)	2.43 (SD=3.41)	**
Range	0-30	0-25	
<i>Relationship third parties with offender-victim</i> ¹⁸			
At least one had ties with both victim and offender	N=65 56	N=115 55	ns
At least one had ties with either victim or offender, but none had ties with both	29	41	ns
None had ties with either victim or offender	14	4	*

* $p < .05$; ** $p < .01$, ns=not significant

Table 2: Actors' behaviour in lethal vs. non-lethal events

	Lethal events (N=126) (%)	Non-lethal events (N=141) (%)	p
<i>Behaviour by victim</i>			
Victim insulted offender	32	18	*
Victim threatened offender	28	13	**
Victim used physical violence	44	56	ns
Victim displayed or used a weapon	19	13	ns
<i>Behaviour by offender</i>			
Offender insulted victim	10	21	
Offender threatened victim	52	62	ns
Offender used physical violence	53	71	**
Offender displayed or used a firearm	28	9	**
<i>Offender's modus operandi</i>			
Strangulation	14	6	ns
Firearm	27	6	**
Sharp instrument	54	64	ns
Hitting, kicking, pushing with or without an object	5	18	**
Other	1	5	-
<i>First behaviour initiated by victim</i>			
Victim precipitation	34	23	*
Conflict started by victim, or by victim and offender together	50	38	*
Victim was the first to insult	26	14	*
Victim was the first to threaten	19	8	**
Victim was the first to threaten with a firearm or knife	14	5	**
Victim was the first to use physical violence	25	18	ns
<i>Behaviour by present third parties</i>			
	N=64	N=113	
Partisanship	33	45	ns
Settlement	19	24	ns
Inactivity	48	31	*

* $p < .05$; ** $p < .01$, ns=not significant

Table 3: Logistic regression models concerning event characteristics and actors' behaviour in lethal (1) vs. non-lethal events (0)

	Model I		Model II		Model III		Model IV	
	Exp(b)	Exp(S.E.)	Exp(b)	Exp(S.E.)	Exp(b)	Exp(S.E.)	Exp(b)	Exp(S.E.)
Background characteristics victim and offender								
Male victim	0,431	1,562	0,364	1,723	0,477	1,674	0,315	1,824
Male offender	5,278*	2,044	9,236**	2,316	10,723**	2,307	15,136**	2,514
Age of victim	1,018	1,013	1,016	1,016	1,020	1,015	1,033	1,018
Age of offender	1,020	1,018	1,023	1,021	1,031	1,022	1,029	1,025
Victim born in the Netherlands	0,515	1,467	0,407*	1,564	0,579	1,550	0,376	1,706
Offender born in the Netherlands	0,798	1,449	0,864	1,557	0,992	1,548	1,135	1,675
Relationship: Non-stranger	0,987	1,728	0,584	1,929	0,434	1,990	0,346	2,177
Related to arguments/altercations	Ref	Ref	Ref	Ref	Ref	Ref	Ref	Ref
Domestic conflict	1,673	1,581	2,941	1,763	2,446	1,719	4,385*	1,908
Felony-related or other conflict	1,176	1,933	2,018	2,164	0,946	2,181	1,547	2,484
Event characteristics								
Location: Home			Ref	Ref			Ref	Ref
Location: Street or parking lot			0,937	1,752			1,279	1,870
Location: cafe/bar/restaurant			6,341	3,916			2,574	6,437
Location: Other			2,495	2,212			1,908	2,522
Morning			Ref	Ref			Ref	Ref
Afternoon			3,329	2,036			4,579	2,195

Evening			2,553	1,889			1,933	1,990
Night			1,057	1,976			1,088	2,125
Alcohol use by victim			3,419*	1,682			4,141*	1,863
Alcohol use by offender			0,433	1,592			0,437	1,725
Presence of third parties			0,172**	1,614			-	-
Number of third parties			1,176*	1,080			1,308**	1,105
Actors' behaviour								
Victim precipitation					4,005**	1,690	4,391*	1,850
Victim displaying or using a weapon					0,859	1,906	0,930	2,004
Offender displaying or using a firearm					15,027**	1,935	10,728**	2,032
Absence of third parties					Ref	Ref	Ref	Ref
Partisanship by third parties					0,155**	1,795	0,030**	2,416
Settlement by third parties					0,213**	1,788	0,117**	1,960
Inactivity by third parties					0,289*	1,774	0,148**	1,960
Constant	0,097*	58,207	0,074	5,312	0,06	4,341	0,018*	6,753
Nagelkerke R square	0,23		0,42		0,45		0,56	
N	176		176		176		176	

* $p < .05$; ** $p < .01$

FOOTNOTES

¹ The Hague and Rotterdam are two of the most important cities in the Netherlands where the vast majority of homicides occur (XXXX & Liem, 2012; XXXX & Leistra, 2007).

² Initially, we chose to only include lethal events committed between 2005-2009; however, in applying our inclusion criteria, this resulted in a small sample size. For this reason, we chose to expand the time frame for lethal events.

³ Attempted homicide refers to Article 45 of the Dutch Criminal Law in combination with one of the following articles: art. 287-291.

⁴ This means that we excluded cases in which the offender or victim were children under the age of 12 (e.g. art. 290 and 291 were excluded).

⁵ Cases in appeal were often not present at the district courts.

⁶ In our logistic regression analyses, a total of 176 serious violent events were eventually included, because of missing values in some variables (especially concerning the variables 'age of victims', 'victim born in the Netherlands' and 'number of third parties').

⁷ In examining the remaining 22% of variables causing discrepancy in coding, we discovered that most were related to choosing either the value 0 ('No') or -99 ('Unknown'). Eventually, in our analyses these values were recoded as 0 (i.e. 'absent').

⁸ Missing n=35

⁹ Mann-Whitney test, missing in lethal events n=20; in non-lethal events n=10

¹⁰ Mann-Whitney test, missing lethal events n=1; non-lethal events n=1

¹¹ Missing n=2

¹² Missing n=4

¹³ To avoid overlap with the variable *subtypes of conflicts*, in our model these variables were merged into one variable comprising stranger vs. non-stranger.

¹⁴ The VIF-value did not exceed a value of 4, indicating that multicollinearity probably did not bias the results. Also, in examining whether possible outliers distorted the outcome of our model, we considered the values of Cook's Distance (cut-off point $Di < 1.0$). As a result, we excluded 2 observations in our analyses.

¹⁵ Missing=1

¹⁶ Missing=16

¹⁷ Mann-Whitney, Missing=41

¹⁸ Missing=6

APPENDIX

Dutch Homicide Monitor

The Dutch Homicide Monitor is an ongoing monitor including all homicides in the Netherlands that took place in the period 1992-2009, which have been categorized as either murder (art. 289 and 291 Dutch Code of Criminal Law) or manslaughter (art. 287, 288 and 290 Dutch Code of Criminal Law), together comprising the category homicide. It is referred a Monitor because information in the database is constantly up-dated and verified, providing an up-to-date overview of homicide in the Netherlands. The Monitor contains information on event, offender and victim characteristics and is based on seven sources, which partially overlap each other, including newspaper articles, police reports, and prosecution data from the computerized inventory of the Public Prosecutor's Office (for more information, see Ganpat and Liem 2012; Nieuwbeerta and Leistra 2007).

Prosecution data from the Dutch Public Prosecutor

Prosecution data from the computerized inventory of the Dutch Public Prosecutor's Office contain data on all known individuals who had been prosecuted in first instance by the Public Prosecutor for committing a homicide or attempted homicide in the Netherlands (art. 287-291 of the Dutch Code of Criminal Law, or in combination with art. 45). First instance means that the case is brought before the court of first instance, referring to the possibly that individuals usually have a right of appeal against the judgment of the court of first instance.