Explaining Violence and Aggression on Public Transport – Literature on Typology and Etiology Applied

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1   Abstract

Questions concerning crime, safety and security have become and continue to be a hot topic in many western European countries with Belgium being no exception. A number of high profile incidents, although atypical in their severity, have focused attention on problems of violence and aggression on public transport in Belgium. As part of a wider research project aiming to improve knowledge of violent incidents in this area from the offender's perspective and thus contribute to their prevention, this article explores a number of related questions. What is the extent of the violent crime problem on the Belgian public transport system? Are there differing forms of violence on public transport and if so, must we search for differing etiological explanations? Does academic literature and criminological theory provide us with any helpful explanations as to the causal factors – both personal and situational – for violence committed in the public transport arena? In light of the above, will situationally based crime prevention initiatives prove sufficient to address the problems of violent crime on public transport or do we need to complement them with other types of intervention?

2   Introduction

Questions relating to safety and security have assumed increasing importance during recent decades. In many west European countries, the topic of public security in various guises now occupies a prominent place on the public and political agenda. In Belgium, a number of factors have been cited as drivers for this development including the rise of right wing political parties in the early 1990's, the 'Dutroux' crisis, the ensuing mobilisation of public opinion and consequent reforms of the country's policing system.[1] More recently, a number of high profile violent crime cases such as the

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1   Maesschalck, J & Ringeling, A, (2008). What goes up must come down? The career of 'safety and security' as a policy issue in Governance of Security in the Netherlands and Belgium, Cachet, L, De Kimpe, S, Ponsaers, P & Ringeling, A (Eds), Den Haag, Boom Juridische Uitgevers, pages 316-322

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murder of Luna Drowart and her child minder Oulemata Niangadou in an Antwerp street in 2006 have served to maintain this momentum.

Issues concerning violence and aggression have also been construed as a problem in and around public transport. The murder of Joe Vanholsbeeck and the death of Guido De Moor, although atypical of the general problematic in terms of their severity, served to highlight to the public at large that public transport was not immune from problems of violence and aggression.[2] Consequently, the Belgian Home Office provided funds to Gent University in 2008 for a research project concentrating on the perpetrators of violence on public transport. Perpetrators were identified from judicial case files in Belgium's five largest cities: Antwerp, Brussels, Charleroi, Ghent and Liège. Thereafter, semi-structured interviews with perpetrators were conducted which aimed to explore the processes and mechanisms surrounding violence on public transport. The specific focus of the project was not coincidental. It has been noted that there is 'very little research aimed at improving our understanding of the origins and escalation of violent interactions. There is also little well-founded knowledge concerning the prevention and control of violence'.[3] The research aimed to fill this gap at least in part.

A broad based international literature review was undertaken during the preparatory phase of the project. Drawing upon the findings of this literature review, this article explores a number of related questions:-

- What is the extent of the violent crime problem on public transport in Belgium?
- Are there differing forms of violence on public transport and if so, must we search for differing etiological explanations?
- Does academic literature and criminological theory provide us with any helpful explanations as to the causal factors – both personal and situational – for violence committed in the public transport arena?
- In light of the above, will situationally based crime prevention initiatives prove sufficient to address the problems of violent crime on public transport or do we need to complement them with other forms of intervention?

3   The extent of violent crime on public transport in Belgium

Precise up to date information on the extent of violent crime on the Belgian public transport system is not easy to come by. Federal Police statistics show that some 73,000 offences of intentional assault were recorded in 2008 (the most recent year for which full statistics are available) and that this represented an increase of 19% in the five year period since 2003. Unfortunately, no breakdown is provided of the various locations in which these crimes were committed thereby making it impossible to es-

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2   In the wake of the murder of Joe Vanholsbeeck in Brussels Central station in 2006, increased feelings of insecurity among young people aged 15-24 (the victim's own age group) were recorded. Interestingly, the murders of Luna Drowart and Oulelata Niangadou appeared to have no perceptible impact on feelings of insecurity amongst the population at large. See Van Den Bogaerde, E, Van Den Steen, I, Klinckhamers, P & Vandendriessche, M (2007). Veiligheidsmonitor 2006, Federale Politie – Directie van de nationale gegevensbank

3   Adang, O. M. G. (2000). "Jonge Mannen In Groepen – Een Geweldige Combinatie?." Justitiële Verkenningen(1), page 79

tablish whether these increases also applied to crimes of violence within the public transport arena. Federal Police statistics do however indicate that some 2,100 recorded crimes in the general category of 'violence against the person' were committed in locations directly related to public transport during 2008 (train, bus or metro stations, on trains, buses or the metro or at bus and tram stops). This represented some 2.5% of overall recorded violent crime during the year. 33% of incidents took place in the Brussels region, 39% in the region of Flanders and 28% in the region of Wallonia. The highest number of offences were committed in or around train, bus or metro stations with 45% of these taking place in Brussels. It is not possible to discern from these statistics, however, the differing types of violent crime from which the global total is comprised: nor is time series comparison information available.

Police statistics also provide us with a picture of the extent and distribution of theft within the public transport system. In 2008, approximately 19,000 such offences were recorded representing 5% of overall recorded thefts in Belgium. 52% of incidents occurred in Brussels, 37% in Flanders and 11% in Wallonia. Again, the highest number of incidents took place in or around train, bus or metro stations although a significant number of thefts were also committed on trams, trains and the metro itself. As with violent crime against the person, the greatest incidence of theft on public transport can be found in Brussels where 52% of the total crimes were recorded. It is not possible to extrapolate from these figures the proportion of thefts on public transport which actually involved violence or the threat thereof. Interestingly, the incidence of both violent crime and theft on public transport in Brussels is significantly higher than one might expect given the city's total population. As indicated, in 2008 33% of violent crimes and 52% of thefts on public transport in Belgium occurred in Brussels whilst the city's population comprises approximately 10% of the country's total.[4]

In common with many other forms of criminality there are, of course, a number of difficulties regarding the use of official crime statistics to obtain an accurate picture of violent crime on public transport. It has been highlighted, for example, (Kyvsgaard 2003) that judicial sources should not in themselves be automatically considered as a reliable source of data owing to, for example, inaccuracies or inconsistencies in police recording, offence categorisation and information provided by victims and witnesses. Equally, the definition of violent crime deployed will have an impact on the type of incidents included and, therefore, the kinds of interventions which are considered to address the problem. The definition of violent crime on public transport employed by the Police in Belgium has two components. Specifically, an incident must concern a reported crime of violence or a crime involving the direct threat of violence and have been committed in a place relating to public transport (in or around train, bus or metro station or, a bus or tram stop or, on the following forms of public transport: train, tram, metro or bus). Whilst such a definition may be satisfactory from legal perspective, a more accurate picture of crime and safety on public transport would be gleaned by adopting a 'whole journey approach' and thus extending the definition to include incidents which occurred victims were walking to, from and between bus and tram stops or train, bus or metro stations (Newton, Johnson and Bowers 2004).

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4   Politiële Criminaliteitsstatistieken – België 2000/2008, Federale Politie – CGOP – Beleidsgegevens, 2009.

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There is, furthermore, a strong possibility that a significant amount of violent crime on public transport remains unreported and recorded by the police or other responsible authorities. This issue was highlighted in a 2004 study concerning violence against staff on railways in the United Kingdom which found that only 52% of physical assaults on staff were reported to an appropriate authority. Reasons cited included a belief that nothing would happen, that the incident was not serious enough to report and that assaults were an accepted 'part of the job.' [5] On the part of passengers, reluctance to delay one's journey, lack of confidence that the offender would be apprehended, the physical absence of someone to actually report an incident to and the belief that a reported incident will not be taken seriously have been cited as reasons for non-reporting behaviour in the specific context of public transport.[6] In addition, the most recent Belgian Crime Survey estimated that only 34% of all crimes were reported to the police and that only 25% resulted in the production of a dossier requiring further action. Reporting levels were particularly low for crimes involving the threat of violence and for sexual offences each of which were reported by less than 10% of victims.[7] There appears no reason to suppose that these trends will not impact on the reporting of crime within the Belgian public transport system.

Finally, we should note that the three regional public transport authorities in Belgium (De Lijn in Flanders, MIVB in Brussels and TEC in Wallonia) and the national rail service provider NMBS do not operate a uniform recording system for violent incidents. Moreover, only one of these providers, De Lijn, actually publishes information on violent incidents which occur within its jurisdiction.

4   Typologies of violent crime on public transport in Belgium

In light of the difficulties in effectively ascertaining the extent of violent crime on public transport in Belgium, it should probably not surprise us that relatively little information is readily available concerning the typologies of incidents. Information from public transport providers, academic literature and analysis of legal dossiers does, however, indicate that the nature of violence on public transport in Belgium encompasses a relatively diverse range of scenarios, behaviours and actors. For example, the Safety and Security survey undertaken in 2008 by the Flemish public transport provider *De Lijn* highlighted that violent incidents can revolve around a variety of participants – passenger(s) and staff member(s), non-passengers and staff members and incidents between passengers themselves. Such incidents involved a range of behaviours including physical aggression, sexual intimidation and assault, spitting, threatening behaviour (both with and without the use of weapons) and thefts (including thefts with violence).[8]

By studying dossiers concerning anti-social behaviour committed by young people on and around public transport, De Wree, Vermeulen and Christiaens (2006) also

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5   Summerell, J, Shorrocks, T & Mitchell, K (2004). Reducing Assaults On Railway Staff – A Report For Railway Safety, Rail & Safety Standards Board, page 17

6   Cozens, P, Neale, R, Hillier, D, & Whitaker, S (2004). Tackling Crime and Fear of Crime While Waiting at Britain's Railway Stations, Journal of Public Transportation, volume 7, no. 4, University of South Florida, page 24

7   Van Den Bogaerde et al

8   Veiligheidsmonitor 2008 http://www.delijn.be/over/veiligheid/eerste_resultaten_veiligheidsmonitor. htm?ComponentId=7566&SourcePageId=6028

identified that a wide range of incident types were recorded by both the Police and public transport providers. These ranged from thefts involving violence to assault, threats of assault, sexual intimidation and brawls. As above, these incidents involved varying configurations of actors – violence amongst young people themselves, violence directed at public transport personnel, violence directed toward adult passengers and violence perpetrated for material gain.[9]

Finally, information gleaned by the authors themselves from a review of 49 legal dossiers in Antwerp for the year 2008 found that a significant majority (73%) of registered cases involved violence where no financial or material motive was apparent. In the majority of cases, 83%, the offender acted alone. 86% of offenders were public transport passengers a status shared by 61% of victims: the remaining victims were employees of public transport providers. 77% of offenders were male. 83% of offenders were adults at the time the offence was committed. 20% of all the analysed cases centred around violence committed during checks of tickets or other travel documents by bus, tram or train inspectors. Interestingly, a parallel analysis of legal dossiers carried out for the central police district in Brussels unearthed some differing characteristics: approximately 70% of cases registered in 2008 and the first part of 2009 involved violence with a financial or material motivation whilst in the remainder no such motive could be discerned. Incidents were, furthermore, committed by a more even mixture of offenders acting alone and in groups than those in Antwerp.

5   Personal and situational causal factors

In the following paragraphs, an overview of literature which casts some light on both the personal and situational causal factors of violent behaviour with relevance to public transport is provided. The themes selected are based on the diverse typologies highlighted above and include consideration of:-

- the differing motivational drivers contributing to the commission of an offence
- the status and selection of the victim
- the role of alcohol and drugs
- whether the offence was committed individually or in a group
- situational factors relating to violent crime on public transport

It should be noted at the outset, however, that the exercise was of necessity limited in scope being constrained by the lack of dedicated research into the causes of violence from the offender's perspective and the fact that within a relatively broad canon of research into generic criminal behaviour, very little attention has been paid to the specific problem of violence and serious violence in particular.[10]

It has been noted that 'violence, like any complex behaviour, has multiple and heterogeneous etiologies, and there is no unitary type of person who is violent.'[11] By way

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9   De Wree et al. pages 25, 309-310
10   Guerra, N.G. (1998), Serious & Violent Juvenile Offenders: Gaps in Knowledge & Research Priorities, in, Loeber, R., Farrington, D.P., Ed. (1998). Serious & Violent Juvenile Offenders – Risk Factors & Successful Interventions, Sage Publications. See also Levy & Maguire, page 832
11   Reiss, A.J, Roth, A (ed), Understanding & Preventing Violence, Panel on the Understanding and Control of Violent Behaviour, National Research Council, 1993, page 361

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of illustration, Toch (1992), writing from a social psychology perspective, conceptualised several distinct types of violent offender: the 'self-image demonstrator', someone who uses violence as a means of demonstrating toughness to gain the admiration of his peers; the 'self-image defender', someone who is easily slighted or insulted and will react violently in order to defend their ego and the 'reputation defender', who acts to defend the values of the group to which they belong when they believe it to be under threat. The form of violent behaviour exhibited alongside the situation in which it occurs and potential trigger points are likely to differ for each of these types of offender.[12]

A distinction has also been drawn in research between what is described as instrumental and expressive forms of violence. The former is thought to be characterised by a degree of rationality and might include obtaining money or re-saleable goods through violent robbery. Such incidents may be more likely to occur in situations where supervision and oversight is low. Expressive violence, by comparison may be construed as satisfying or functional from an offender's perspective but without necessarily being underpinned by a clear rationale or economic motive. As such, illustrative examples of expressive violence would be street fights, football hooliganism or, in an institutional setting, violence committed against prison officers by inmates. Interestingly, such violence can still occur (or may even be more common) in certain settings and situations where supervision and oversight is high in that this can sometimes act as a trigger to potential offenders.[13] Such situations could plausibly include violence committed by passengers against public transport employees during, for example, the ticket control process.

If the distinction between instrumental and expressive violence was clear cut and valid, two differing and distinct forms of prevention strategy could evidently be devised. Such a relatively crude bifurcation of motive and motivation has, however, been called into question in a number of studies. In their research into violent street robbery, Jacobs and Wright (2007) explored offenders' motivations and decision making processes in the run up to the commission of an offence. Whilst many offenders cited an ostensibly rational need for money to meet financial and addiction problems, their selection of targets was often more opportunistic and instinctive than premeditated. Financial need was, furthermore, somewhat unconventionally defined and included the ability to maintain consumption of non-essential status enhancing items. Interestingly however, the choice of robbery over other offences appeared to be considerably more rational in that it was seen as an easier and less risky method of making money than other legal or illegal alternatives.[14] Similarly in their research with carjackers, Topali and Wright (2007) found that offences triggered by 'pure' opportunity or 'pure' need were relatively rare. More usually, the motivation or trigger lay somewhere between these two extremes.[15] The implied specialism in offence selection referred to

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12 Toch, H (1992). Violent Men – An Enquiry Into The Psychology Of Violence, American Psychological Association, pages 135-162

13 Gadon, L., Johnstone, L., Cooke, D. (2006). "Situational Variables And Institutional Violence: A Systematic Review Of The Literature." Clinical Psychology Review 26, page 524. This finding relates specifically to 'expressive' violence within a prison setting.

14 Jacobs, B.A, & Wright, R, Stick-Up: Street Culture & Offender Motivation in, Pogrebin, M., Ed. (2007). A View Of The Offender's World About Criminals, Sage Publications, pages 63-67

15 Volkan, T. and Wright.R, Dubs and Dees, Beats and Rims: Carjackers and Urban Violence in, Pogrebin, M., Ed. (2007). A View Of The Offender's World About Criminals, Sage Publications, pages 72-76

above appears, however, to run counter to other studies which have found that violent offenders also tend to commit non-violent crimes: in other words, they are versatile rather than specialised. Linkages between differing forms of violent behaviour have also been found, in that people who commit one form of violence have a relatively high probability of committing another.[16] The frequency and amount of violent offences committed by individual offenders is not easy to determine. Farrington (1989) found that while nearly all of the offenders in his longitudinal study were convicted of non-violent as well as violent crimes, only a quarter of their crimes were violent. Moreover, whilst 70% of offenders were convicted of only one violent offence, they were frequent general offenders who appeared to 'graduate' to violence after property crime.[17]

Various studies have also been conducted which attempt, in one way or another, to cast some light on the role of alcohol and drugs in violent crime. By way of example, the 2005 European Crime and Safety Survey identified a positive correlation across 18 European Union countries between rates of violent crime and the consumption of alcohol.[18] Similarly, crime survey data from the United Kingdom has established that in over half (53%) of violent incidents where the perpetrator and victim were previously unknown to each other and in over a third (36%) of acquaintance violence incidents, the victim described the perpetrator as being under the influence of alcohol[19] whilst American research (Frieze and Browne 1989) established a clear relationship between alcohol use and violence in general and against partners in particular. 'Alcohol-related violence' is often associated with places where young people meet and where disputes may arise both in and around drinking establishments. Such disputes often extend into the public transport arena as people attempt to make their way home following a night out.[20] It is, however, overly simplistic to regard alcohol alone as a sufficient pre-cursor to violent behaviour in that not all heavy drinkers are prone to violent behaviour and even violent offenders who drink heavily are not violent every time they drink. Nonetheless, the opportunities for certain forms of interaction combined with the kinds of fragile self-respect described by Toch above, would appear to implicate alcohol, at the very least, in the process of becoming violent.[21] In contrast, there is very little evidence to suggest that the pharmacological effects of cannabis, hallucinogens or opiates make people violent (at least when they are consumed alone). Clearer linkages have, however, been found between violent behaviour and the use of amphetamines or solvents albeit that these findings need to be treated with same degree of caution

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16 Reiss, A.J, Roth, A (ed), Understanding & Preventing Violence, Panel on the Understanding and Control of Violent Behaviour, National Research Council, 1993, pages 359-361. See also Pease, K. (2005) No Through Road Closing Pathways To Crime, in Crime Reduction & The Law, Moss, K. S., M., Ed. Routledge, page 55 and Whyte, B. (2001). Effective Intervention for Serious and Violent Young Offenders, Criminal Justice Social Work Centre For Scotland, page 1

17 Farrington, D. (1989) Early Predictors Of Adolescent Aggression & Adult Violence, Violence & Victims 4, Springer Publications, pages 307- 331

18 Van Dijk, J, Van Kesteren, J, Nevala, S, Hideg, G. (2005) The Burden of Crime in the EU: Research Report – A Comparative Analysis of the European Crime and Safety Survey (EU ICS 2005), EUICS Consortium, page 2 and appended tables

19 Mattinson, J, (2001). Stranger And Aquaintance Violence: Practice Messages From The British Crime Survey, Briefing Note 7/01, London: Home Office, page 3

20 (2007). Youth Violence Alcohol & Nightlife – Late Night Transport. W. H. O. G. C. F. V. Prevention. Liverpool, John Moores University

21 Levy & Maguire, pages 827-828.

as those which emphasise the causal link between alcohol and violence. [22] In both instances, however, it is probably an exaggeration to consider alcohol and drug related violence as distinct forms of violence: rather, we should note they role that they can play alongside other factors in contributing to violent behaviour in the public transport arena as elsewhere.

Research has also attempted to explore the characteristics of violence committed in groups much of which starts from the presumption that 'exceptional' behaviour is somehow easier to carry out in a group setting with its associated features of relative anonymity, group solidarity and peer pressure. A piece of observatory research conducted with football supporters in the Netherlands by Adang (2000) concluded that the existence of a group can in itself sometimes act as an escalatory factor which leads to violence because communication between potential aggressors, victims and bystanders which might mitigate the situation is harder to hear and interpret. He saw, furthermore, that the greater the prospect of participants remaining anonymous, the greater the probability that violence would be used. Such violence was not, however, employed by all gang members as even in sharply escalating situations, only some 10% of the group became actively involved with the rest acting as onlookers. Other factors influencing the use of violence were primarily physical: the availability of weapons, knowledge of a particular area or territory and the associated possibility of a safe escape. The number of people in a group was not seen to be important as a contributory factor in violent behaviour. Rather, the characteristics of the group and the relationship between its members were of greater significance. Interestingly, Adang does not subscribe to the view which sees gangs and gang members as essentially apart from mainstream society pointing out that many of the factors which appear to contribute to violence in group situations are also features of everyday life: obedience, conformity, prestige and solidarity with peers.[23]

A small number of studies have concentrated specifically on the factors which can contribute to violence on or around public transport. In a research project focusing on the public transport system of Birmingham, a major British city, Burrell (2007) highlighted how public transport hubs can act as both generators and attractors for crime. A crime generator is characterised as a place where significant numbers of people are attracted for reasons entirely unrelated to criminal motivation. Consequently, large numbers of criminal opportunities become manifest as potential offenders and targets are brought together both spatially and temporally. Crime attractors, on the other hand, are places which offer many criminal opportunities that are well known to offenders. People with criminal motivations are attracted to such locales to commit crime. Within the context of public transport, Burrell encourages us to view large stations or bus terminals as generators because they create opportunities for crime due to the amount of people using them. The concept of an attractor would be more appropriate for particular stations or bus stops which are poorly lit, unstaffed or have gained a bad reputation for crime. She also makes an interesting assertion based on previous research (Newton 2004) that the incidence of crime at a particular bus stop, station, bus, tram or train route is likely to be higher in areas where the incidence of crime is higher in the local community. Burrell's research found evidence that violent crime

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22   Ibid. Violence associated with drugs tends to be that associated with the commercial aspects of its sale and distribution i.e. a desire to defend to establish market position

23   Adang- page 79

did indeed cluster around transport hubs including bus stops, train stations and tram stops: evidence that the problems were more pronounced in high crime communities was, however, not established.[24] In a Belgian context, her conceptualisation of generators and attractors may also help to shed some light on the incidence of violent crime committed in or around train bus and metro stations alongside the disproportionate incidence of public transport related crime in Brussels in relation to the city's population as highlighted earlier in this article.

In a 2006 study concerning situational crime prevention on public transport, Smith and Cornish (and their co-authors) make a number of interesting observations concerning violent crimes committed against both passengers and employees. They emphasise that there are two high risk periods for violence: late afternoon (when the combination of children leaving school and the onset of the afternoon rush hour can lead to overcrowding, disputes over behaviour and personal space and increased anonymity) and late evening (when low passenger densities can increase vulnerability for staff and passengers alike). With specific reference to violence against staff, they also highlight that certain employees suffer a disproportionate number of assaults and emphasise the importance of three contributory factors:-

- the times, routes or locations the employee works are associated with a high risk of assault
- the role of the employee is associated with a high level of assault
- the behaviour of the employee may contribute to the assaults.

In addition, the authors point out that disputes over fares have been found to be important precursors for employee assaults on public transport with those at greatest risk being members of staff required to challenge members of the public. This observation appears to chime with the findings of our dossier analysis in Antwerp and with the notion that 'expressive' violence can sometimes be triggered in situations where supervision and oversight of potential offenders is high. Smith and Cornish also note that employees under stress from high workload will have less patience for passengers and may be less likely or able to diffuse potentially violent situations.[25]

Interestingly, in spite of the apparent importance of these assertions, we were not able to source any further studies which could cast light on the dynamics of problematic or violent incidents during ticket checks (as opposed to studies which attempted to establish the incidence and frequency of such incidents or which concentrated on related topics e.g. reducing fare avoidance).

In a discursive article concerning violence and disorder on the Dutch public transport system, Hauber (2001) highlights a number of factors which may have indirectly contributed to a reported rise in the number of violent incidents during the 1990's and a parallel increase in their severity. Emphasising that the increasingly commercial climate in which public transport providers must operate has led to a reduction in personnel on trams and trains in the Netherlands, he asserts that personal oversight has been largely replaced with technical measures. One practical consequence of this development is that the remaining train guards are sometimes less inclined to check

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24   Burrell, A. (2007). Violence On And Around Public Transport, University of Central London
25   Smith, Martha J & Cornish, Derek B (eds) (2006). Secure & Tranquil Travel – Preventing Crime & Disorder on Public Transport, Jill Dando Institute of Crime Science/Univesity College London, pages 77 – 106.

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tickets out of concern for their own safety leaving carriages less policed and consequently prone to more crime. In contrast, he points out that there were considerably fewer incidents on trams with conductors than on those without and, that feelings of safety and security for both staff and passengers were considerably enhanced as well. The absence of platform controls, access restrictions and ticket checks before boarding a train is also highlighted in that this can increase resentment from passengers who are subsequently asked to produce their ticket on the train itself. Open access to trains can, of course, allow passengers to board without first obtaining a ticket creating a potential conflict situation which might arguably be avoided in circumstances where a ticket check was obligatory before getting on the train.[26] This finding was also highlighted by LaVigne (1997) in her research into situational crime prevention initiatives on the metro system in Washington DC.[27]

Finally, a major piece of research undertaken by the charity Crime Concern on behalf of the United Kingdom government's Department of Transport (1997) focused on a number of broad themes concerning young people and crime on public transport. Perhaps unsurprisingly, the study concluded that the types and patterns of crime which occur on public transport reflect the opportunities presented by the mode of travel and the location of the route. The majority of assaults on public transport networks took place in metropolitan areas and occurred later in the day: approximately half of all assaults involved young people. Interestingly, the report also highlighted that whilst most young people felt safe using public transport during daylight hours, in common with adults their perceptions of personal security changed after dark with girls and young women in particular (but not exclusively) expressing concerns about their safety.[28]

6   Criminological theory

The diversity of violent behaviour in the public transport arena is reflected in the range of available explanations for violence which range from the 'socio-biological through psycho-analytical and psychological to sub-cultural and other sociological theories which focus on (on issues such as) hegemonic masculinity.'[29] Interesting and valuable though many of these works may be, much of their focus lies in attempting to identify the underlying background, developmental and structural causes of violence. They are, so to speak, concerned primarily with distal factors which may lead to violent offending in the future rather than the more immediate proximal factors which precede the commission of an offence in the here and now. As such, they cast relatively little light on the two of the key problematics on which our research was focused: to ascertain why offenders committed a particular crime against a particular person in particular circumstances and, with this information, to establish what if anything could be done to reduce the frequency of such incidents or prevent them from happening

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26   Hauber, A. R. (2001). "Openbaar Vervoer – Reizigers, Agressie En Onveiligheid." Justitiele Verkenningen(1), page 115

27   Lavigne, N. G. (1997). Visibility & Vigilance: Metro's Situational Approach To Preventing Subway Crime, NIJ Research In Brief.

28   (1999). Young People & Crime On Public Transport, Department For Transport UK, pages 13-15

29   Levy & Maguire, page 810

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again – in other words, to consider what is realistically preventable in the short to medium term.

In the paragraphs which follow, we provide a synopsis of some key criminological theories which we feel can contribute to an understanding of our problematic. All the identified theories incorporate the premise that violent incidents are essentially the culmination of a dynamic, interactive and sometimes escalating process. They have also been chosen because they should allow us to make sense of a range of violent behaviours with differing origins, outcomes and underlying motivations committed on or around the Belgian public transport system.

The Routine Activity, Rational Choice, Opportunity And Lifestyle Exposure Theories

Historically, theories of crime have taken either a 'dispositional' stance, focusing on the individual offender or a 'sociological' approach which emphasised the social conditions associated with crime. The work of Cohen & Felson (1979) altered this paradigm somewhat with the development of the routine activity theory. They suggested that crime occurred when three particular elements were combined: a specific situation (a time and location), a target and the absence of effective guardians. The combination of these three elements provides the opportunity for successful offending. The three main components of the theory have evolved over time. Thus, for example, another construction drawn from the same theoretical background might focus on the exposure of victims to motivated offenders (proximity), potential yields as targets (reward) and accessibility (the absence of capable guardians). In this view, victims' degree of risk or exposure to criminal activity is influenced by their individual characteristics and lifestyles. These theories all depart from the premise that offenders seek to gain some advantage from their criminal behaviour and that this involves a degree of rationally based decision making whereby a range of alternative courses of action are contemplated. The theories are closely linked to much of situational crime prevention thinking by way of their efforts to understand an offender's initial decision to become involved in crime and, the process leading up to the commission of a specific crime – target selection, deterrence factors etc. It is in the second area that most of their practical application with regards to offenders has taken place.

Proponents assert that it is possible to significantly impact on the opportunities for crime and the offender's decision making by changing elements of the situation – by reducing target availability (in either a physical or personal manner) or increasing surveillance for example. In this sense, these theories may be of some relevance to the typologies of violent crime on public transport with a financial or material motivation which were highlighted earlier in this contribution. It is also suggested that the use of these theories in work with offenders can add considerably to the body of knowledge concerning situational deterrence factors and the way in which victims are selected. Critics argue, however, that the conception of offender motivation which is implicit in all four theories is overly simplistic. Offender motivation is either assumed to be constant or there is no explicit reference as to what motivates people to commit crime at all. This restricted focus means that many potential prevention opportunities are arguably missed. A further problem is that these theories are arguably more applicable to predatory crime committed for material gain rather than more 'expressive' acts of

offending behaviour.[30] Even here, as we have seen, the selection of targets by offenders is not always an inherently rational process (Wright 2007). Thus, whilst increasing guardianship (by ensuring the presence of conductors on all buses and trains for example) is likely to have some impact on violent crime committed for financial gain, it is unlikely to eradicate the problem in its entirety. Such measures may, furthermore, serve to actually increase the incidence of violence committed against public transport personnel.

The Situational Action Theory

What should be apparent from the above discussion is that considering the problem of violence on public transport from a largely situational perspective is probably too restrictive in focus. Moreover, in view of the diverse forms of violent behaviour which occur on public transport, theories which concentrate only on violence with a notionally rational motivation will not suffice. We have already noted the need to consider a range of differing forms of violent behaviour alongside the difficulties in clearly delineating violent acts as being either rationally or instrumentally driven as opposed to more irrational and expressive. Equally, for some offenders 'individual characteristics and experiences may be the most important factor influencing their problematic behaviour; for others it may be the environment in which they operate.'[31] These differing perspectives are encompassed within Wikström's situational action theory which affords the potential to explore both individual and ecological factors alongside questions relating to an individual's development and the relative stability or change in the settings in which they participate.

The fundamental argument upon which the situational action theory is based is that peoples' acts (including criminal acts) are a consequence of how they see their options (how they react to their environment) and make their choices. Individual factors and environmental factors may be regarded as causes (or part causes) of crime to the extent that they can be shown to influence people's perceptions of alternatives and the process of choice relevant to their engagement in acts of crime.[32] The theory fuses together a number of complex concepts revolving around the interaction between an individual and the various settings in which they live their lives (friends, family, school, work etc.) Changes in an individual, their setting or the relationship between the two can have an influence on behaviour. The theory is, in other words, 'not about "kinds of individuals" or "kinds of settings" but about "kinds of individuals in kinds of settings".[33]

According to Wikström, at each stage of life the likelihood of an individual engaging in a criminal act (and indeed the nature of these acts) may be viewed as an outcome of both external and internal factors. External factors relate to an individual's

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30   McLaughlin, E & Muncie, J (Eds) (2006) The Sage Dictionary Of Criminology, Sage Publications pages 278-280, 339-340 & 365-366. See also Meier, R. F., Miethe, T.D. (1993). Understanding Theories of Criminal Victimisation. Crime & Justice – A Review of Research. Chicago, University of Chicago Press, pages 470-479

31   Wikström, P. O. & Treiber, K. (2008). Offending Behaviour Programmes, Youth Justice Board

32   Wikström, P. O. (2004) Crime As Alternative – Towards A Situational Action Theory Of Crime Causation in, Beyond Empricism: Institutions and Intention in the Study of Crime, New Brunswick, Transaction, page 7

33   Ibid – page 23

temptation/provocation thresholds and their sensitivity to deterrance. Internal factors are an individual's current moral values and executive functions. Temptation is defined as the perceived option to satisfy a particular desire in a certain way whilst provocation can occur via a personal attack on an individual (or someone close to them), their property, security or self respect resulting in an unlawful response. An individual's morals and executive functions influence their propensity to commit crime. In essence, they determine what people find tempting and what they construe as provocative, alongside the tendency to see crime as a morally acceptable option and – ultimately – to choose that option. These tendencies can be mitigated by deterrance in any setting. Deterrance is defined as an inhibiting mechanism which involves the risk of monitoring or intervention and associated sanction. Importantly, it is conceived more widely than situational crime prevention or punitive interventions and includes the impact of, for example, personal relationships. Individuals vary in their sucseptibility to deterrance. Those with poor executive functions (i.e. weaker potential to exercise self-control) are likely to be less easily deterred than individuals with more developed executive functions. Changes in an individual's characteristics and experience will influence changes in their action through associated shifts in how they perceive alternatives and make choices in each of the settings in which they operate. The nature of settings themselves are also important in that some settings are likely to be more criminogenic than others. For Wikström, a criminogenic setting is one which is more likely to contribute to to an individual's perception of crime as an alternative and, to their choosing to act on such an option. Such settings are criminogenic to the extent that they create opportunity, cause friction and provide monitoring. Opportunity is construed as the presence of people, objects and events which are necessary for carrying out unlawful activities for either pleasure or gain. Friction refers to events that trigger adverse reactions to other people's behaviour (e.g. anger or irritation) and which increase the liklelyhood for some form of unlawful response. Monitoring in this context relates to the risk of intervention and detection if people carry out unlwaful acts. Conversely, some types of setting are more favourable to the development of the the kinds of values and emotions that suppport law abiding behaviour and to the development of executive functions that support the exercise of self control.

The situational action theory attempts to cast some light on precisely what causes a person to see crime as an alternative and what subsequently makes them act upon that option. Importantly, in the context of research into violence on public transport, the theory has a number of other advantages. Firstly, it allows us to consider both individual and ecological causes of particular crimes from both a proximal and distal perspective within an integrated theoretical framework. Moreover, its relative neutrality on the priority afforded to the causal components of crime – these being viewed as particular to an individual and their intercation with a specific setting – is particularly helpful when attempting to understand a phenomenon around which, as we have seen, relatively little previous research been has done. Finally, the theory's flexibility makes it potentially "fit for purpose" in attempting to understand the diverse typologies of violent crimes committed in the public transport arena including those with both a rational or material motivation and those in which no such motivation is apparent. For these reasons, we considered the situational action theory to be the most helpful of all the theoretical perspectives identified on which to base the empirical component of our interviews with perpetrators of violence on the Belgian public transport

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system. The results of these interviews will provide the basis for a subsequent article in the near future.

7   Crime prevention on public transport

Having examined several differing aspects of violent behaviour which are of relevance to the public transport arena and provided an overview of theories which may assist with their analysis, this contribution will conclude with some observations on the subject of crime prevention and reduction on public transport. In the paragraphs that follow, we provide an illustration of some of the initiatives taken to counteract violence on or around public transport in a number of countries both in Europe and beyond.

Mukherjee (1995) describes how in the Netherlands, the government responded to concerns about insecurity and aggression on public transport during the 1980's by authorising the public transport authorities to employ unemployed young people as VIC staff (Veiligheid, Informatie, Controle or Safety, Information and Control) in three major cities – Rotterdam, Amsterdam and the Hague. The VICs were deployed in different ways; some worked in groups of two to four, some were authorised to impose fines to defaulters, some implemented random ticket checks, and some staffed metro stations. The role of those staffing metro stations was to provide information and not to check passengers. Passengers caught without a valid ticket could either buy one from the driver or leave the train. In case of problems the VICs could rely on support from a special team or the police. The deployment and competencies of such private security staff raised some interesting boundary issues the exploration of which lies beyond the scope of this contribution.[34] The impact of the initiative was, however, positively evaluated with the numbers of passengers either witnessing or reporting that they had been the victim of assault or harassment both declining. These results were attributed to the visible presence of staff around the public transport system.[35]

In contrast, the French city of Nantes chose to respond to its problems of crime on public transport by establishing a dedicated unit from the local police (La Brigade de Surveillance des Transports Commun or Public Transport Surveillance Section – B.S.T.C.) which works in partnership with the city's public transport authority. Groups of police agents are assigned to travel by public transport: they can be supplemented by others in problem neighbourhoods or if particular problems occur. The public transport authority itself has established a security section comprised of some 48 agents. The work of these agents is primarily dissuasive in character their presence being viewed as a disincentive to those inclined to commit crime.[36]

A more diverse approach has been taken by the Flemish public transport provider De Lijn whereby a series of temporary or permanent prevention measures can be deployed in response to problem incidents or on a wider neighbourhood basis. Along-

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34   See for example Cachet, L and Ponsaers, P (2008). Security Policy Questions, in Governance of Security in the Netherlands and Belgium, Cachet, L, De Kimpe, S, Ponsaers, P & Ringeling, A (Eds), Den Haag, Boom Juridische Uitgevers.

35   Mukherjee, S. (1995). Reducing crime on public transport in The Netherlands, The promise of crime prevention: leading crime prevention programs <http://www.aic.gov.au/publications/rpp/01/index.html> Research and Public Policy Series. P. J. Grabosky, M. Canberra, Australian Institute of Criminology.

36   Antoine, Christophe et Jean-Hubert, La violence dans les Transports en commun , http://membres. lycos.fr/tpeeden/acceuil.htm

side technical measures such as the installation of CCTV cameras on its vehicles, De Lijn also deploys dedicated personnel to enhance oversight and provide a dissuasive presence on buses, trams and bus/tram stops. Such initiatives are often undertaken in partnership with the local police. The organisation also works alongside local government, schools, youth organisations and street workers on a range of prevention projects.[37]

On a more global scale, a 2007 study examining violent crime and nightlife, the World Health organisation's Violence Prevention Alliance highlighted that in many parts of the world, transport options are often limited late at night when nightlife areas are at their busiest. Consequently, crowds often gather in the streets around bars and nightclubs increasing the potential for violent encounters. Long waits, frustration and competition for limited transport facilities can make bus stops and taxi ranks hotspots for violence. Ancillary problems can also occur as a result with people adopting risky methods to get home (accepting lifts from strangers, driving under the influence of alcohol etc.) Transport workers have, furthermore, been identified as being at risk of violence in several countries.

The report found some evidence to suggest that improvements to late night transport facilities can contribute to a reduction in levels of assault. The value of late night bus services is emphasised with the important provisos that such services need to protect both customer and driver safety and, that consideration must also be given to where customers are deposited to prevent any redistribution of violence elsewhere. The value of security and marshalling staff to assist with queuing arrangements is highlighted as is the need to protect transport staff using measures such as security staff and police on vehicles, CCTV, radio links between drivers and the police and the modification of vehicles to enhance the physical protection of drivers. Importantly, however, the report also cautions that transport improvements will not in themselves eradicate late night violence entirely. Consequently, transport measures must be seen as one component in a wider strategy to reduce the risk of violence.[38]

As part of a study evaluating a crime prevention initiative on bus routes in Liverpool, United Kingdom, Newton, Johnson and Bowers (2004) describe how many crime reduction strategies on public transport have focused on attempting to influence one or more of the three routine activity theory elements: by improving surveillance, for example, and by helping to ensure that sufficient 'guardians' are present at specific times of the day to make it more difficult for a motivated offender to target a victim. They cite a range of good practice examples drawn from other research projects including improving visibility or lighting, increasing staff presence, allowing police in uniform to travel on buses for free, the use of CCTV, emergency help points, cleaning and speedy maintenance and the use of transport wardens. Interestingly, they also suggest that the most successful schemes tend to be the ones which are multi-agency and that adopt multi-tactical approaches.[39]

A practical example of such multi-agency work is provided by Burrell (2007) in her research into violence on public transport focused (in the main) around another major British conurbation, Birmingham. She describes how the police and bus operators

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37   http://www.delijn.be/over/veiligheid/veilig_op_weg_projecten.htm?ComponentId=6065&SourcePageId=6028
38   Youth Violence Alcohol & Nightlife – Late Night Transport.
39   Newton, Johnson & Bowers

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conduct high visibility ticket checks in specific locations where a variety of bus routes converge. Passengers travelling without a ticket are asked to leave the bus, can be administratively fined and occasionally subject to a police search which have resulted in the recovery of weapons or other suspicious or illegal items. This initiative is positively assessed from the perspective of the Police but no evidence is actually provided concerning its utility as a crime reduction initiative. Burrell also describes how, following a rise in fare evasion and anti-social behaviour, the metro train operator decided to employ conductors and found that there have been fewer problems on the system since their introduction. Interestingly, the conductors have also been issued with badges which have the ability to audio record speech at the touch of a button. In the event of a dispute, the recording is activated and can be used as evidence in the event of an operator pressing charges against a passenger. Finally, the need to incorporate security measures into the design of all new bus and train stations is highlighted.[40]

The manner in which design, management and maintenance arrangements can impact on crime on public transport is considered by LaVigne (1997) who analysed situational crime prevention initiatives on the metro system of Washington DC in the United States. Crime rates on the system are stable and significantly lower than those in a number of comparable American cities. The author asserts that the open design of stations giving clear views for passengers reduces the potential for criminals to hide in dark corners or passageways. Stations have also been designed without toilets or excess seating thereby reducing the potential for loitering. Access to platforms is restricted to those having a valid travel ticket which must also be used to exit the system. Passengers can buy multiple-use farecards in any dollar amount thereby reducing the amount of cash which is physically available to pickpockets. Stations are continuously staffed during opening hours and are fitted with CCTV cameras. Such measures are complemented by strict enforcement of "quality of life" violations on trains (no smoking or eating) by specifically dedicated transit police officers and the prompt reporting and repair of all vandalism and graffiti. Information regarding 'house rules' for the metro are clearly displayed in stations and on trains. Those who violate these rules risk an element of public humiliation as station masters broadcast public reprimands of rule breakers.

Whilst recognising that precise attribution of crime rates to these preventative measures is not straightforward, the author believes that on balance, the Washington metro's design characteristics and operating policies have contributed to its low crime rates. An important exception to these successes is, however, assault, which, she suggests may not be as situationally influenced as other crime types.[41]

A number of other studies have, however, raised questions concerning the efficacy of some situational crime prevention measures such as CCTV. In a systematic review designed to assess the available research evidence on the impact of CCTV on crime, Welsh and Farrington (2008) warn that the significant investment in CCTV infrastructure in many countries has not been matched by sufficient rigour in evaluation. They identified only four specific studies concerning the use of CCTV in a public transport context all of which related to underground railway and metro systems. The studies provided conflicting evidence of success: in two cases a reduction in crime was dem-

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40   Burrell
41   Lavigne

onstrated, in one case crime increased and in the other no discernable impact was noted. Furthermore, in both instances where reductions in crime were noted, the use of other crime reduction/prevention initiatives alongside CCTV meant that it was very difficult to attribute these outcomes to the introduction of CCTV alone. Overall, the review concluded that CCTV has a modest but significant effect on crime. It appears, however, to be more effective when targeted at vehicle crime in car parks than in other public or semi-public spaces (public housing, city/town centres or public transport systems).[42]

The impact of CCTV as a deterrent is questioned in article by Sivarajasingham, Shepherd and Matthews (2003) who concluded that many offenders had insufficient knowledge of the factors that increased their chances of detection when committing an offence either in general or, because of temporary cognitive impairment arising from stress, the use of alcohol or drugs etc. The authors emphasise however that CCTV can play an important role in reducing harm arising from incidents of violence in that intervention from law enforcement or other authorities often comes about more rapidly than would otherwise have be the case.[43]

Issues relating to deterrence, certainty and punishment in the context of the Zurich public transport system are the subject of an interesting article by Killias, Scheidegger and Nordenson (2009). They emphasise that the deterrent effect of punishment is based not only on the severity of the sanction itself but also on issues relating to consistency of application: the probability of being caught and that any eventual sanction is actually applied. This assertion is based upon research conducted on the Zurich public transport system from 2003 onwards. The authors describe how, following the abolition of ticket checks on suburban trains in 1993, an increasing proportion of users started to evade payment of fares (approximately 4% of passengers were regularly found without a ticket). This rate remained stable despite different periodic attempts to address the problem including patrols by plain clothes inspectors, increasing fines for repeat offenders, identity checks and ultimately criminal prosecutions. In a move designed to address fear of crime amongst passengers rather than fare evasion as such, the Zurich public transport authorities decided to re-introduce systematic ticket checks for passengers during evening hours. As a result of this initiative, approximately one passenger in three was subjected to a ticket check after 9.00pm. The percentage of passengers detected without having paid a fare fell to 1% whilst – interestingly – there was also a decrease in passengers travelling without tickets during daytime hours: a classic example of 'diffusion of benefits.' The authors also highlight that beyond a certain point, increasing the number of ticket checks will not actually result in any further reduction in passengers travelling without a valid ticket. This is because passengers who are still not discouraged by dramatically increasing levels of control may have social or personality characteristics which are not amenable to policy changes of this nature.[44]

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42 Welsh, Brandon C & Farrington, David P, (2008). Effects of Closed Circuit Television Surveillance on Crime, Campbell Systematic Reviews, 2008, page 14

43 Sivarajasingham, V, Shepherd, J P & Matthews K (2003). Effect of urban closed circuit television on assault injury and violence detection, Injury Prevention, 9, 312-316

44 Killias, M, Scheidegger, D & Nordenson P (2009). The Effects of Increasing the Certainty of Punishment – A Field Experiment on Public Transportation, European Journal Of Criminology, Volume 6 (5), pages 387 – 400.

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The above examples appear to tentatively illustrate that it is possible for public transport operators, police and security service providers together with public authorities to design and implement crime prevention or reduction initiatives which can have some impact on crime levels in and around public transport albeit that great care must be taken in interpreting changes in crime levels and the particular factors which may have brought them about. In that most of these initiatives focus on reducing the opportunities and increasing the difficulties and risks associated with offending – via both personal and technological interventions – they can be broadly categorised as falling under the situational crime prevention umbrella. The examples also raise questions, however, concerning the limits of situational crime prevention and whether such initiatives alone will be sufficient to prevent the commission of violent crime on public transport. Given the multiplicity of offence types, configurations of perpetrators and victims and potential causatory factors highlighted earlier in this article, this should probably not surprise us.

8   Conclusion

This contribution has considered a number of questions concerning violence on public transport. In attempting to establish the extent, nature and trends of violent behaviour on the Belgian public transport network, we have seen that the use of official crime statistics alone is of limited utility in that data collection by the police concerning the phenomenon is somewhat incomplete, time series comparative information is unavailable and, in all probability, many crimes remain unreported to the Police or other authorities. Official statistics do, however, provide some indication that the problem is significant enough to warrant further attention. The incidence of violence in and around the public transportation system in Brussels appears, furthermore, disproportionately high in relation to the city's population. Explanations for this discrepancy could form a useful focus for additional research in this area. It is also noteworthy that Belgium's four public transport authorities do not operate a uniform recording system for violent incidents which occur within their jurisdiction. Moves to redress this situation would allow for a more complete picture of the phenomenon to emerge.

Information gleaned from differing sources – legal dossiers, surveys undertaken by public transport providers themselves and academic research – indicates that violent behaviour on public transport in Belgium involves a diverse range of behaviours with differing motivational drivers committed by varying configurations of actors. Such diversity is not confined to the typology of incidents alone. The authors' own analysis of legal dossiers in Antwerp and Brussels appears to indicate that differing forms of violent crime, configurations of actors and offender motivation may be apparent in Belgium's two biggest cities. This too, could provide a useful focus for further research.

The breadth and complexity of violent incidents on public transport effectively entails that differing etiological explanations are required. Our literature review examined a number of criminological theories which attempt to explain violent behaviour concentrating, in particular, on theories with a primarily (but not exclusively) proximal focus. In light of the diverse typologies of violence on public transport, we conclude that the flexibility afforded by Wikström's situational action theory is particularly appropriate for those wishing to gain a better understanding of the problematic

The findings on incidence and typology above have been complemented by a review of international literature illustrating the range of both personal and situational causal factors for violent behaviour and the initiatives undertaken by various public transport providers to counter it. In so doing, we have highlighted a number of examples where situational crime prevention approaches appear to have had a positive impact on violent crime in the public transport arena. However in light of the diverse typologies involved, such initiatives should not necessarily be seen as a panacea in that they will be unlikely to deter all types of offender and may, in certain situations, actually create the conditions which can provoke violent incidents between passengers and staff. There remains a need for robust evaluation of both crime prevention initiatives and further analysis of all stages of the violent crime commission sequence from the offender's perspective. In this way, the shortcomings of overly generic crime prevention measures which can operate at too high an aggregate level to address the actual issues involved in crime commission may be overcome (Cornish 1994).

Valuable though existing crime prevention initiatives may be, too little is known about the dynamics of violent crime in general and its commission in the arena of public transport in particular for us to be confident that a fully stocked tool box of solutions is currently available. The development of a more specific knowledge base in this area should, therefore, be considered a priority.

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