

## **Gerben's commute and victimization: Would moving to Amsterdam have been safer?**

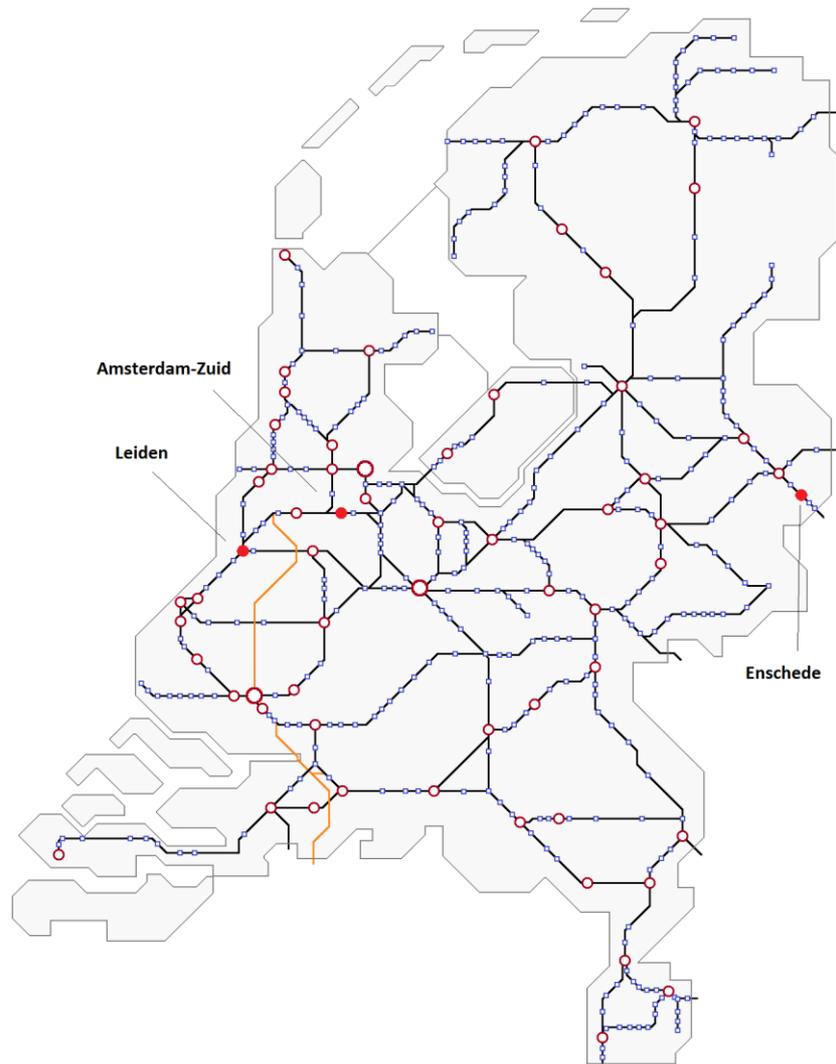
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Within the criminological community, Gerben Bruinsma is renowned for his scientific work and for having lead the Netherlands Institute for Crime and Law Enforcement (NSCR). His dissertation on Sutherland's differential association theory (Bruinsma, 1985, see also Bruinsma, 1992) was exemplary of his focus on theory-driven research and empirically sound testing: He reconstructed the development of this perspective in great detail, translated it in formal hypotheses, operationalized its central concepts in a more precise way than ever, and rigourously tested it on empirical data. In his later work, one of Gerben's favorite subjects in criminology was the role of the spatial environment in crime. For a long time, he has been interested in the distribution of crime over neighborhoods, cities, and other areas, on the history of 'geographical criminology', and in so-called criminographies, which offer insightful descriptions of crimes in a city or urban area. Once he became director of the NSCR in 1999, it came as no surprise that one of the main themes of the institute became the distribution of crime and offender mobility—where offenders moved to and where they committed their crimes. This resulted in numerous publications and international collaborations. The role of the geographical environment was also one of the main subjects of the Study of Peers, Activities, and Neighborhoods (SPAN), which Gerben originally initiated in 2007 after a sabbatical in Cambridge, and in which he closely collaborated with the three authors of this contribution (and others).

Having briefly discussed these interests and accomplishments, we will now shift focus to an entirely different aspect of Gerben's worklife. Because, in addition to his scholarly contributions, Gerben is also famous amongst colleagues for his extensive commute.

Before Gerben joined the NSCR and Leiden University in 1999, he worked at the University of Twente, located at six kilometers from his home in the city of Enschede. After accepting his functions in Leiden, he commuted by train between Enschede and Leiden several days a week. This journey is about 200 kilometers (124 miles) and takes three hours. In 2009, the NSCR moved to Amsterdam, where Gerben continued to lead the NSCR and became a professor at the Vrije Universiteit. The move shortened the length of his commute. The university is located near train station Amsterdam-Zuid, at a 2.5-hour commute covering 160 kilometers (99 miles) from Gerben's home in Enschede.

Assuming that during an average month Gerben visited NSCR on 16 days, we conservatively estimate his cumulative commuting distance to and from Leiden (10 years \* 12 months \* 16 days \* 400 kilometers) and Amsterdam (8 years \* 12 months \* 16 days \* 320 kilometers) at 1,259,520 kilometers and (replacing the kilometer terms in the formula's by 6 and 5 hours, respectively) 19,200 hours. The last figure is almost frightening; assuming a workyear of 220 workdays of 8 hours, Gerben spent an equivalent of almost 11 working years commuting to Leiden and Amsterdam!



**Figure 1.** Train Stations Enschede, Leiden and Amsterdam-Zuid in the Netherlands Rail Network

Although these numbers speak for themselves, they become even more extraordinary in the Dutch context. In the Netherlands, one can cross the entire country by car in three hours and fifty minutes from North to South<sup>1</sup> (from the village Oudeschip to the village Mesch) and in two hours and ten minutes from East to West (from Overdinkel to Noordwijk aan Zee). Dutch commuters travel, on average, 34 minutes per workday to make an average trip of 24 kilometers (15 miles) to their work and back home (Statistics Netherlands, 2016). Gerben's commute is thus definitely at the far end of the long tail of the commuting distance decay distribution.

This chapter presents a criminological view on Gerben's commute. In line with Gerben's approach, we strive to base our contribution on criminological theory and to provide a sound empirical basis for our conclusions. In particular, we discuss the relationship between crime and commuting from a routine activity perspective, and we review the empirical literature on this topic. The conclusion provides an answer to the question: Would Gerben have been safer moving to Amsterdam rather than staying in Enschede?

<sup>1</sup> Not taking into account the islands

## Commuting in The Netherlands

Commuting refers to daily travel between home and work or between home and school. Due to increased car ownership, deconcentration of land use, and increased female labor force participation, work trips have lengthened in the US and Western Europe over the past decades (Schwanen et al., 2004; Wachs et al., 1993).

Research on commuting has addressed questions regarding housing location choice, choice of travel mode, and motivations for commuting and is generally undertaken by scholars within economics, social geography, psychology, sociology, architecture, and urban planning.

Commuting in the Netherlands may differ from commuting in other countries in several respects. First, the country is characterized by a relatively large number of cities of moderate size that are in close proximity to each other (especially in the western part of the country, called Randstad). Therefore, the percentage of inter-city commuters is larger than in other countries (Limtanakool et al., 2006; Schwanen et al., 2004). Second, Dutch people may be less inclined to move after changing their employment, compared to commuters from other countries, particularly the US (Schwanen et al., 2004). Third, as in other European countries, postwar policies in the Netherlands have tended to favor public transportation over the use of private cars. As a consequence, public transportation is currently a more popular mode of transportation for commuting in the Netherlands than it is in the US (Smith and Clarke, 2000). In the Netherlands, the train is used for ten percent of the home-work kilometers. Six percent of the home-work kilometers is covered by bike, and 77 percent is covered by car (Statistics Netherlands, 2016).

Empirical findings point at social differentiation in the duration of commutes. Particularly, individuals who make lengthy home-work trips are often male, highly educated, and White or Asian as compared to Hispanic or Black (Groot et al., 2012; Limtanakool et al., 2006; Wachs et al., 1993). In the Netherlands, highly educated commuters are more likely to travel by public transportation than by car (Groot et al., 2012).

The main motivation for a long commute is individuals' unwillingness to relocate after they get a new job, generally because of a strong family or community orientation. Reasons to stay are, for example, costs of living in the job area, quality of schools in the home area, proximity to friends, family, and recreational facilities, and attachment to the home neighborhood or city (Wachs et al., 1993).

In general, people prefer a small commute to no commute. The sample of Redmond and Mokhtarian (2001) reported an average 'ideal commute time' of 16 minutes, indicating that a commute may serve another purpose than to just bridge the distance between home and work. A little travelling time provides the commuter with the opportunity to transition between home and work roles, to prepare for the day, and to decompress at the end of the day (Redmond and Mokhtarian, 2001). A commute can also be viewed as 'me-time'; a moment where no demands are made on the commuter by others, thus giving them time to read, listen to music, or daydream (Gatersleben and Uzzell, 2007). Travelling by foot, bike, or public transportation has the additional advantage that it evokes obligatory physical exercise (Shephard, 2012). Travelling by train or bus, for example, requires walking or biking to the transit station (Besser and Dannenberg, 2005; MacDonald et al., 2010).

Despite these benefits, commuters also report many negative aspects of their daily travel. Negative experiences of commuters relate to delays causing agitation or stress (e.g., traffic jams, waiting for the bus or the train), inconvenience (e.g., encountering noisy, smelly people, narrow roads), and danger or fear of danger (e.g., walking along unlit paths, being alone in a compartment of the train; Gatersleben and Uzzell, 2007; Wener and Evans, 2011).

In the remainder of this chapter, the focus will be on one of these negative aspects of the commute: the risk of victimization of crime. The next section outlines the theoretical background of the association between commuting and victimization.

## **Theory on commuting and victimization**

Routine activity theory provides many reasons for why commuting could be a risky activity. According to routine activity theory, crime concentrates in spaces and times where motivated offenders, suitable targets, and absence of potential guardians converge (Cohen et al., 1981; Cohen and Felson, 1979). Such convergences, and thus opportunities for crime, emerge because of daily activities and movements of individuals. A commute is a recurring activity that also shapes individuals' other spatial-activity patterns.

Commuters are attractive targets because their actions are predictable: They move through the same transfer points and corridors everyday at the same time; they all wait in the same waiting places (Smith and Clarke, 2000). They are focused on the continuation of their journey and will be distracted at predictable moments, such as when the train enters the station or when they leave their cars and walk to their office buildings. Also, commuters will often carry laptops or other small and expensive devices (Spano et al., 2008) and may be tired and caught off guard by a quick offender (Newton and Ceccato, 2015).

During their commute, commuters are likely to interact with other people, which may include potentially motivated offenders. The extent to which individuals interact with other people during their commute varies, of course, per mode of transportation. In a car, individuals have very little interaction with other people. Nevertheless, they still run the risk of becoming victim of (nonphysical) aggression when there is an accident or near-accident; they can be robbed at a gas station; their car can be damaged; and they can become injured because of other road users' traffic violations. Individuals who commute by public transportation, by bike, or as a pedestrian are visible and accessible for many strangers, which increases their risk of victimization of, for example, pickpocketing and violence. Some motivated offenders may purposively travel by public transportation to target travelers and commuters. Further, transit locations, such as bus stops or train stations, force people to linger while waiting for the bus or train to arrive. This makes them more noticeable than if they had been walking through an area without pausing (Smith and Clarke, 2000). For victimization during commutes by public transportation, a fruitful distinction can be made between crime occurring 'while moving' (e.g., on the train, in the subway) and crime occurring when commuters wait at boarding points (Newton, 2004).

During a commute, individuals are less likely to be supervised than during other activities, such as when working in an office or reading at home. Two factors contribute to this lack of supervision. First, during a commute, individuals are exposed to public spaces (e.g., streets, highways, train stations, bus stops, parking lots). As opposed to private and semi-public spaces, public spaces are accessible to anyone, which means

that people can enter anonymously. Thus, both the motivated offenders and their potential targets are anonymous, which decreases the chance that *handlers* (known to the offender) or *guardians* (known to the target) are present. People generally feel less responsible for public spaces than they feel for private or semi-public spaces with which they have a long-standing relationship. Passers-by have no direct incentive to intervene when they see a criminal incident happening, other than human decency. Therefore, in public spaces, chances for direct interventions by passers-by are slim, and offenders are unlikely to be caught (Felson, 1995). This leaves the *place managers* as the remaining source of supervision<sup>2</sup>. Place managers can be, for example, personnel at a train station, ticket collectors, or service attendants at a gas station. Their job is to keep a specific location clean and safe (Eck, 1994). As Smith and Clarke (2000) pointed out, such dependence on place managers is tricky in an environment where there is pressure to reduce staff costs, which is often the case in public transportation.

Second, by moving through time and space, commuters cross various behavior settings rather than staying in one setting. Individuals who are exposed to a more diverse range of settings are more likely to be confronted with criminal opportunities in one of those settings: When in a given setting, the only way to become exposed to new opportunities for crime is through a change of this setting (Bernasco et al., 2013). Additionally, moving from setting to setting means that less guardianship will be available; stable surroundings allow people to become familiar with other people in the setting, which facilitates surveillance of people and property and enables development of social cohesion (Lynch, 1987). For example, if exactly the same fellow-commuters would share the exact same train compartment every day, this could lead to feelings of solidarity, as well as to feelings of responsibility for protecting that compartment and the people in it. Instead, the reality is that commuters sit in different train compartments every day and that, even during one trip, the composition of travelers changes at every stop.

Thus, in summary, commuters are attractive targets. The commute itself exposes commuters to a pool of (potentially) motivated offenders in situations where supervision is likely limited or absent. Therefore, commuting can be an activity that increases individuals' risk for victimization of crime.

As a final remark on the theoretical background, we note that the relationship between commuting and crime can also be explained from the crime pattern theory. According to the crime pattern theory, individual offenders target areas that they are familiar with (Brantingham and Brantingham, 1993). Some areas are likely to be familiar to—or make up the awareness space of—more potential offenders than others. Specifically, areas or places that are visited during the daily commute (e.g., train stations and bus stops) will be familiar to a large number of potential offenders. These activity nodes, as well as the paths to and from these nodes, are thus theorized to be especially crime conducive.

## **Empirical evidence on commuting and victimization**

Ever since the first publications on the routine activity theory, much attention has been paid to 'non-household activities'. When people are away from their property (for work, school, shopping, or other activities), they leave their homes without a guardian, which increases the risk of it being burgled (e.g., Cohen and Cantor, 1981; Miethe et al.,

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<sup>2</sup> Except, of course, for the police, whose job it is to prevent and intervene in crime at all locations.

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1987; 1990; Miethe and McDowall, 1993; Miethe and Meier, 1990; Tseloni et al., 2004; Wilcox Rountree et al., 1994). Additionally, activities that take place away from the home are more likely to expose individuals to high-risk environments and bring them into close proximity of motivated offenders. Therefore, being away from the home increases one's risk of becoming the victim of violence or theft (Bunch et al., 2015; Miethe et al., 1987; 1990; Miethe and Meier, 1990).

Since the early works on routine activity theory, extensive efforts have been made to distinguish which of these non-household activities are most 'risky'. In this regard, studies have focused on specifying exposure, proximity, guardianship, and attractiveness within the domains of work (e.g., Lynch, 1987; Wooldredge et al., 1992), school (Garofalo et al., 1987; Wilcox et al., 2009), and leisure. Regarding the last, empirical research pointed at sports activities (Begg et al., 1996; Rutten et al., 2007) and involvement in unstructured socializing (Osgood et al., 1996, overview in Hoeben et al., 2016) as 'crime conducive' activities. However, a domain that has been mostly neglected within studies on the routine activity theory is the domain of 'travel'. When examining victimization risks for specific routine activities (e.g., work, school, and leisure), researchers often combine the time spent on those activities with the time spent travelling to and from those activities (Lemieux and Felson, 2012). This may not be good practice, because the risk associated with 'travelling' may be different from the risks associated with the activities people travel to.

In the remainder of this section, we will provide an overview of the few studies that have specifically addressed the relationship between travelling and crime. We focus particularly on daily travel, such as commuting to school and work, and attempt to answer the following questions: Are individuals who commute frequently, or for a longer duration, at a higher risk of victimization compared to other individuals? What individual characteristics (e.g., demographics) or characteristics of the commute (e.g., mode of transportation) strengthen or weaken this relationship?

### *Search strategy*

To identify studies on commuting and victimization, first, a broad search was conducted in Web of Science and Google Scholar using the terms: transportation/travel/commute and crime/victim/delinquency. Second, studies on the routine activity theory were checked for whether they incorporated items on 'travelling' or 'commuting'. For this step, all seventy studies were selected that were incorporated in two recent systematic reviews on the routine activity theory: One focusing on victimization (McNeeley, 2015) and one on individual involvement in crime as offender or victim (Spano and Freilich, 2009). Additionally, thirteen classic empirical studies on the routine activity theory were selected that had not been incorporated in the two systematic reviews (Cohen, 1981; Cohen et al., 1980; 1981; Cohen and Cantor, 1980; Cohen and Felson, 1979; Felson and Cohen, 1980; Hough, 1987; Lynch, 1987; Messner and Blau, 1987; Messner and Tardiff, 1985; Riley, 1987; Smith, 1982; Van Dijk and Steinmetz, 1983). Third and finally, a backward search was conducted by checking references in the identified relevant studies.

The review is limited to studies on the relationship between individual victimization and commuting or daily traveling. Studies were excluded if they only incorporated measures on perceived crime, or fear of crime, rather than on victimization of actual crime (e.g., Halat et al., 2015; Ingalls et al., 1994; Wiebe et al., 2015). Studies were also excluded if they concentrated on how commuting shapes crime rates in home

areas and areas of destination through its effects on the ambient population, rather than on how commuting affects individual involvement in crime (e.g., Andresen, 2006; Felson and Boivin, 2015; Mburu and Helbich, 2016; Stults and Hasbrouck, 2015). Further, studies were excluded if they focused on the 'journey to crime' rather than on the daily commute to work (e.g., Rengert, 2004; Townsley and Sidebottom, 2010). Finally, studies were excluded if they were solely focused on crime and crime prevention at micro transit environments (e.g., Uittenbogaard, 2015) or on characteristics of the broader area surrounding such micro transit environments (e.g., Loukaitou-Sideris, 1999; Zhang, 2016).

### *Commuting and individual victimization of crime*

Although the literature is scarce on this topic<sup>3</sup>, there is some indication that individuals who commute to their work more frequently or for a longer duration have a higher risk of being victimized. Particularly, in a study using nationally representative data from Brazil, Moura and Neto (2016) found that individuals who commute more than an hour have a higher chance of being victim of robbery, but not theft, compared to individuals who commute less than an hour. The average time for a commute in their sample was 34.6 minutes. Messner et al. (2007) conducted a study among people in urban China and confirmed that individuals who travelled out of the city for their work more frequently were at increased risk of becoming victim of theft and swindling (fraud), but not of robbery or assault, as compared to individuals who travelled less often. Notably, in their sample, travelling out of the city for work was fairly rare with 93 percent of the sample reporting that they 'almost never' did so. The other categories of this variable expressed whether the respondents travelled out of the city 'less often than once a year' or 'more often than once a year'. Lemieux and Felson (2012) combined two national-level datasets from the United States about victimization and time use to calculate general risks for violent victimization across nine activity categories. They concluded that victimization rates are higher among transit activities (travelling to and from work, school, and other activities) than among other activities (working, attending school, shopping, leisure activity, sleeping, other activities at home). Specified for type of violence, they concluded that, during the commute to work, people are most at risk of being victim of robbery, simple assault, and threat of violence. Commuters did not appear to be at elevated risk for victimization of aggravated assault or sexual assault.

Other studies have provided indirect evidence for the relationship between commuting and victimization, by confirming that 'going out for work' or 'hours spend on a job' were related to increased risks of victimization (e.g., Jensen and Brownfield, 1986; Kennedy and Forde, 1990). We consider these findings as indirect evidence for the commute-crime relationship, because such measures do not only incorporate the time spent travelling, but also the time spent at work. Similarly, also providing indirect evidence, Spano et al. (2008) concluded in a study among African American youth from high-poverty neighborhoods in Alabama (USA), that employment status was not related

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<sup>3</sup> The scarce literature on this topic may indicate that the commuting-crime relationship is not robust, as studies with nonsignificant findings may not have made it through peer review. It may also indicate that there are insufficient data sources to investigate the relationship. A study on commuting and individual victimization requires measurement instruments that contain items on both self-reported victimization and lifestyle indicators, specifically on travelling times, modes, and destinations. Travelling may be particularly hard to capture, because people generally spend less time in transit than at their destinations (Lemieux and Felson, 2012) and because activities that take up little time are more difficult to capture with regular time use instruments (Pentland et al., 2002; Wikström et al., 2012).

to violent victimization but that the number of hours involved in employment was. They concluded that this might be explained by youth having to commute through dangerous neighborhoods, although their data were insufficient to test that explanation explicitly.

Not all findings are supportive of the commute-crime relationship: Messner et al. (2007) did not confirm that the duration of the commute (0 minutes; 1-30 minutes; more than 30 minutes) was related to increased risks of victimization. Likewise, Averdijk (2011) did not confirm the relationship between the frequency of 'evenings away for work, school, or entertainment' and victimization.

Travelling to and from *school* seems to be consistently related to increased risks of victimization. Lemieux and Felson (2012) found that 'travelling to and from school' was by far the most dangerous activity for simple assault, threat of violence, and robbery, with even higher victimization rates than 'travelling to and from work'. Wikström et al. (2012) noted, based on offending rates calculated with space-time budget data derived from adolescents in England, that offending rates are particularly high in the hours respondents are 'moving around'. They remarked that the overlap between 'moving around' and 'socializing' complicates the coding of these categories, but that two-thirds of the time respondents spent moving around unsupervised with their peers occurred between 08:00 and 09:00 and 15:00 and 16:00, which are the times at which the adolescents were likely to travel to and from school. Garofalo et al. (1987) reported, based on National Crime Survey data from the United States, that school-related victimization of more serious types of crime (i.e., robbery and aggravated assault) is most likely to occur while travelling to and from school, whereas simple assault is more likely to take place within the school buildings. Deakin (2006) concluded that children's victimization of harrasment, physical assault, and theft occurs most of the time on the street (51 percent, 36 percent, and 39 percent of the incidents, respectively), often on their route to or from school. Moore et al. (2011) conducted a comparative study among adolescents from eight European countries and found that about 30 percent of the respondents reported to have been victim of crime or bullying while travelling to or from school. This is higher than the percentage reported by the Howard League for Penal Reform (2007). They conducted a survey among 3,023 10-to-15-year-olds in England and concluded that 15 percent of the respondents had been victim of crime on their way to or from school. Finally, using data from the School Crime Supplement to the NCVS, Burrow and Apel (2008) found that students who commute to school for 30 minutes or longer have increased risks of becoming victim of assault, but not larceny.

Travelling *to* school and traveling *from* school may not be equally risky. As observed during an intervention study in Philadelphia, the commute back home allows more opportunity for trouble for three reasons. First, the afternoon travel is more crowded, as larger groups of students leave school at approximately the same time, whereas in the morning, students travel alone or in small groups. Therefore, in the afternoon, students are exposed to more potential offenders. Second, in the afternoon fewer adults are present on the streets than in the morning, which means that less potential guardianship is available. Third, in the afternoon, students have more time for their commute than in the morning because, in the morning, they have to be at school at a certain time. This allows for more opportunities for crime (Stokes et al., 1996).

Some studies have explored the relationship between victimization and travelling in general, without specifying the purpose or destination of the trip. These studies generally focus on one mode of transportation and compare people travelling with this mode to people who travel less often or who travel with other modes of transportation.

Most notably, Tseloni and Pease (2003; 2004) found that use of public transportation was linked to increased risks for personal victimization. Specifically, respondents who used public transportation *daily or at least once a week* had a 56 percent higher risk of personal victimization compared to respondents who *never* used public transportation. Using public transportation *less than once a week* was related to an increased risk of personal victimization of 41 percent. Messner et al. (2007) showed that respondents who used the bus as the primary mode of transportation for going to school, going to work, or for shopping, were at higher risk of becoming victim of theft compared to respondents who did not use the bus as primary mode of transportation.

### *Moderators*

Not much research is available that specifies what factors strengthen or weaken the relationship between commuting and victimization. Lemieux and Felson (2012) found that for all three transit activities included in their study (going to or from school, work, and other places), the risk of victimization for nonwhites and those younger than 30 years was at least double the risk than that of whites and those 30 years and older. Also, for the activity 'going to and from school' (but not 'going to and from work'), they found that victimization rates were almost twice as high for males than for females. This would mean that ethnicity, age, and gender are potential moderators in the relationship between commuting and victimization. The study of Moura and Neto (2016) also indicated 'gender' as a relevant moderator. Their findings showed that women are more at risk of robbery victimization during their daily commute to work than men. Levine and Wach's (1986) study was not specifically focused on commuting to and from work, but on bus use in general. They looked into self-reported incidents of victimization among a sample of people who used the bus five or more days a week ('heavy bus users') in Los Angeles USA and concluded that those particularly at risk of victimization are women, people over 65 years old, and Whites and Hispanics (as compared to Blacks and Asians).

Regarding characteristics of the commute to school, the study of Stokes et al. (1996) indicated that 'time of day' may be a relevant moderator: Travelling in the afternoon appears to be more strongly related to victimization than travelling in the morning. Travel company, however, does not appear to be a relevant factor. Stokes et al. (1996) showed that victims did not differ from non-victims in the extent to which they walking to and from school alone or with friends. In contrast with the findings of Stokes et al. (1996), Moore et al. (2011) noted that the main contributing factor to adolescents to 'feeling safe' during their commute to school was 'travelling with friends'. Note that their study concerned feelings of safety, rather than actual victimization.

Additionally, some studies point at 'travel mode' as a potentially relevant moderator, although these studies' results are inconclusive as to which travel mode is most crime conducive. Cozma et al. (2015) conducted a study among school-aged children who lived within one mile from school and were, therefore, ineligible for the school bus. They found that respondents who used active transportation to school (i.e., walking or biking) were at higher risk for bullying victimization than children who travelled to school by car or public transportation. Burrow and Apel (2008) found that students who had commutes of 30 minutes or more to school were at increased risk of victimization of assault. They remarked that the respondents with the longest commutes were also the ones to generally travel to and from school by school bus or some other form of public transportation. Sampasa-Kanyinga et al. (2016) sketched an even more

complex picture. They found that travelling to school by school bus is related to increased risk of bullying victimization as compared to walking or biking to school, but only for males, not females. Further, they found that travelling to school by public transportation actually *decreases* the risks of bullying victimization as compared to walking or biking to school, but only for females, not males.

### *Recommendations for further research*

Based on the conducted literature study, we suggest two topics that deserve more attention. First, more examination is needed into the moderating role of 'mode of transportation'. Previous studies hint that some modes of transportation are more 'risky' than others (Burrow and Apel, 2008; Cozma et al., 2015; Sampasa-Kanyinga et al., 2016), but their findings are inconclusive as to which modes are most conducive to victimization. Travelling per public transportation is generally treated as one category, even though it hosts a variety of transport modes (e.g., bus, train, subway, taxi) and includes time 'moving' as well as time spent waiting at transit stations (Newton, 2004).

Second, to gain insight into processes of 'spatial entrapment', it may be relevant to further explore the role of commuting as a mediator between demographics and victimization. If people from more disadvantaged backgrounds, or living in more disadvantaged neighborhoods, run higher risks of victimization due to the commutes they make to work, they may decide to search for a job closer to home, which limits their socioeconomic mobility.

### **Geographic areas and crime: comparing Enschede and Amsterdam**

Summarizing the findings from the studies on commuting and victimization, we might conclude that, due to his long period of commuting between Enschede and his work, Gerben has been at an increased risk of victimization since 1999. This is particularly the case because his mode of choice has always been public transportation, which appears to be one of the most 'risky' ways of commuting. One wonders why a well-informed criminologist like Gerben spent a major part of his life on the train? Would he not have been better off if he had reduced his commute by either moving to Leiden and Amsterdam, or by renting an apartment for the workweek? We cannot answer this question yet, because we also need to take into account differences in crime levels of the cities where Gerben lives and works. As is well known (see e.g., Bruinsma, 2007), there are major geographical differences in residential crime between cities. In the final part of this chapter, we compare the crime rates of Enschede, the city where Gerben still lives, and Amsterdam, the city where Gerben has been employed since 2009.

Enschede and Amsterdam are both fairly big cities, although Amsterdam is clearly bigger. Enschede has about 125,000 inhabitants, while the larger area of Amsterdam has almost one million people living in it (CBS Statline). Amsterdam is also six times larger in size than Enschede. Amsterdam serves as the capital of the Netherlands and is a major touristic destination for visitors from all over the world. Enschede has a more regional function, but is a major destination for visitors from nearby Germany to the market on Saturday. Amsterdam has a rich history, dating back to the middle ages. The city became one of the most important cities worldwide during the seventeenth century, the Dutch 'golden age' (see e.g., Shorto, 2014). Enschede has some historic churches and buildings in its city center, but its main development took place during the end of the 19<sup>th</sup> century and the beginning of the 20<sup>th</sup> century, when

workers in the emerging textile industry moved from surrounding rural areas to the city (Kokhuis, 1984, see also Bruinsma, 1999). Both Enschede and Amsterdam have to cope with major urban problems such as deprived neighborhoods and high levels of unemployment. Also, both cities have had major crime problems in the past, including organized crime and riots around illegal car races (see e.g., Bruinsma, 1999; Fijnaut et al., 1996).

How do these two municipalities compare with regard to crime nowadays? According to the Nationale Misdaadmeter ([www.denationalemisdaadmeter.nl](http://www.denationalemisdaadmeter.nl)), Amsterdam was, of all 389 municipalities in the Netherlands, the least safe in 2013, 2014, and 2015. A recent report by the NSCR confirms this position, finding that Amsterdam is still higher in crime than other Dutch cities, even if we take into account the presence of temporary visitors and tourists (Bernasco et al., 2016). In the Nationale Misdaadmeter, Enschede also appears to rank low in the list of safe municipalities, although crime rates are less severe than those in Amsterdam. Particularly, Enschede placed 345<sup>th</sup> in 2013 en 2015 and 360<sup>th</sup> in 2014 in the list of municipalities in the Netherlands ranking from the safest (1) to the least safe (389).

To get more details about current crime levels in both cities, we present publicly available data from Statistics Netherlands (CBS Statline). Statistics Netherlands provides overviews of all offenses registered by the police, distinguished by type of crime, year in which the offense was registered, and the municipality in which it was committed. Table 1 provides a summary of the crime rates in the municipalities of Enschede and Amsterdam, and of all municipalities in The Netherlands. The rates represent the average number of registered offenses per 1,000 residents for the years 2010 to 2014.

As can be seen in Table 1, the crime rates in both municipalities are much higher than the average crime rates in The Netherlands. This was to be expected, given the urban characteristics of Enschede and Amsterdam described above. Looking at the total crime rates for the two municipalities, Enschede is with 87.56 registered offenses per 1,000 residents much 'safer' than Amsterdam, despite its low rank in the list of safe municipalities from the Nationale Misdaadmeter. This difference in crime levels applies to most offense types, except for 'damaging property'. It appears that residents of Enschede run a higher risk of someone damaging their cars than the residents of Amsterdam. However, all in all, these crime rates indicate that Enschede is a much safer environment to live in than Amsterdam.

**Table 1.** Crime rates in the municipalities of Enschede, Amsterdam, and The Netherlands

	Enschede	Amsterdam	The Netherlands
Total offenses	87.56	124.36	67.28
Property crime			
Theft and burglary	55.56	83.84	38.48
Damaging property	9.28	7.10	7.90
A car	3.64	3.04	3.60

A public building	0.52	0.20	0.30
Means of public transportation	0.00	0.16	0.10
Violence			
Assault	4.20	5.80	3.34
Threat	2.62	4.28	2.14

*Notes:* Registered offenses per 1,000 residents, average per year for the years 2010-2014

*Source:* Statline CBS (Statistics Netherlands)

## Conclusion

Based on the review of the literature on commuting and crime, we conclude that the large amount of commuting of Gerben exposed him to a relatively high risk of becoming a victim of crime. The literature indicates that long commutes increase the risk of personal victimization, both of violent crimes and property crimes (e.g., Lemieux and Felson, 2012; Moura and Neto, 2016). This risk may be especially salient when the commute is undertaken with public transportation, because supervision is largely absent and motivated offenders lurk in every corner (Felson, 1995; Smith and Clarke, 2000). One could even speculate that, because Gerben travelled in first class on the train (the ‘elite class’), he made himself known as an attractive target to potential pickpockets.

However, based on the analysis of local crime rates in Enschede and Amsterdam, we may conclude that the decision to commute exposed Gerben to relatively lower levels of residential crime risks. His home environment (Enschede) is much safer than his work environment (Amsterdam).

How these two effects would balance out is difficult to say, since we have no precise crime figures for the train trajectories Enschede-Leiden and Enschede-Amsterdam Zuid. As far as we know, however, Gerben has not been victimized during any of his commutes, though he had to deal with delayed trains and trips regularly. Therefore, we tend to conclude that from a crime risk point of view, it was probably a wise—yet inconvenient—decision of Gerben to undertake the commute between Enschede and his work in Leiden and Amsterdam.

This contribution also shows that further investigation is needed into the relationship between commuting and risks of crime, especially at the individual level and preferably with longitudinal data. Commutes are, for many people, the foundation around which other activities and trips are scheduled. They, thereby, form the core of many individuals’ awareness spaces and spatial-activity patterns.

### *Concluding remarks*

In the 17 years that Gerben was director—and later professor—at the NSCR, he exposed himself to many risks of victimization during a long commute by train. It will be a relief to know that, now he is retiring, he will be able to spend much more time in the safe surroundings of his home in Enschede.

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