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Chapter 1: Retail Crime: Aim, Scope, Theoretical Framework and Definitions

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Introduction

Shoplifting is the major cause of retail loss in 18 of the 24 countries surveyed in the Global Retail Theft Barometer in 2014-2015 (GRTB, 2016). In Sweden, stores experience 2 million shoplifting cases each year (Swedish Trade Federation, 2015). This pattern is also evident in countries like the UK and the US (Bamfield, 2012). Many of the targeted stores are on particular streets while others are part of shopping centres or outlets on the outskirts of the cities, and these stores and centres can become foci of crime. Not all of them though constitute crime attractors or generators (Brantingham and Brantingham 1995; Franka et al., 2011), but some concentrate crime so badly (Eck, Clarke and Guerette, 2007; Rengert et al., 2010) that they are thought to radiate crime to their vicinities, while others absorb it (Bowers, 2014). The stores' interiors and design as well as the way products are displayed influence motivated individuals' decision to offend or not (Cardone and Hayes, 2012), while new technologies designed to enable customer convenience are also generating new opportunities for crime (Beck and Hopkins, 2017; Taylor, 2016).

Retail crime is more than shoplifting. Employees in retail declare being 46% more likely to suffer workplace violence than the average employee in the US (Harrell, 2011). They may steal, as there is actually more theft by employees than by customers (Hollinger and Adams, 2010; GRTB, 2016). Motivation for employee theft varies (Clarke and Petrossian, 2013), but it can be linked to criminal organisations, some with connections beyond national borders (Burges, 2013), and can take a variety of forms (fraud, cargo thefts, cybercrime, corruption and lethal violence), not rarely intertwined

with legal ones. Such operations 'involves a vast array of small fish' (Felson, 2006, p. 8). This complexity makes retail crime an issue worthy of attention by researchers, retailers, police and other professionals interested in the interplay between targets, settings and criminals.

Aim and scope of the book

This book contributes to this knowledge base by characterising the dynamics of retail crime from an international perspective. Special focus is given to the settings and the environments where retail crimes take place. Retail crime encompasses any criminal act against a store, a company or a conglomerate of companies, their properties as well as their employees and customers. Some of these crimes are composed of multiple events; some taking place far beyond the boundary of the store, affecting stakeholders along the product supply chain, such as Organised Retail Crime (ORC). The book also explores the use technology along the product supply chain; how it can affect crime opportunities and to some extent prevent crime.

The book is grounded in environmental criminological theory and the principles of situational crime prevention, but approaches this crime problem from a multidisciplinary perspective. The book also offers both theoretical and practical perspectives on current crime prevention activities directed to crimes that most affect stores, retailers, shopping malls and commercial conglomerations located both within the inner cities and on the outskirts of towns and cities. The book offers state-of-the-art research on retail crime from Europe, the US, Middle East, South America and Australia. As such, its appeal lies with both academics and practitioners from a variety of disciplines and backgrounds.

A decision has been made to exclude from the scope of the book the following issues: cybercrime, online theft, fraud, online loss – topics covered within other key texts. In addition, this book does not include the politics of retail crime and crime prevention. Although the book touches upon issues of crime by employees, terrorism, riots/looting/activism in retail environments, and managerial and organisational issues related to crime and crime prevention in retail environments, these topics have not been the focus of this book. Some of these issues have already been presented elsewhere (for instance, Bamfield, 2012; Bamfield, 2014; Beck, 2016a, Beck, 2016b; Beck and Peacock, 2009; Gill, 1994; 2005; Gill, Bilby, and Turbin, 1999; Hayes, 2007; Wiefel and Gregus, 2016).

Book structure

The book is divided into 6 parts and 16 chapters. Part 1 establishes the purpose and scope of the book. In Chapter 1, the structure and the contents of the book are outlined. The chapter includes an introduction to the theme, the book scope and delimitations, key definitions and theoretical principles used to structure this edited volume and support the reading of the chapters. Chapter 2, by Joshua Bamfield, presents the international trends in retail crime. The chapter also introduces to the topic of retail prevention practices that we revisit at the end of the book.

Part 2 focuses on the types of products that are most stolen as well as on the interplay between the product, settings and offenders in retail environments. This is the *micro* scale of retail crime that focuses on products, settings and to some extent, store environmental features. Brian Smith and Ron Clarke, using the CRAVED approach, focus on shoplifted, fast-moving goods to illustrate offenders' decision-making. These

authors are particularly interested in finding out the types of goods most stolen by offenders. In the same vein of thought, James Hunter, Laura Garius, Paul Hamilton and Azrini Wahidin study prolific theft offenders to understand who these offenders are and the reasons they steal from shops. The case study is based on evidence from the United Kingdom. Emmeline Taylor takes a step ahead by looking at the influence of new technology on offender's behaviour in retail environments and in particular, customer-operated payment systems, self-service checkouts and their impacts on retail crime.

Part 3 of this book is devoted to crime and perceived safety in retail environments, also on the *micro* scale. In particular, the focus shifts towards the importance of the settings and retail environments on offenders' decision-making and on customers' perceptions of safety and risk. The chapter written by Rachel Armitage, Chris Joyce and Leanne Monchuk captures offenders' perceptions of risk and protective factors in the design and layout of retail environments in the UK. A study from Australia on the nature of shoplifting in small stores, presented by Paul Cozens, is followed by two pieces from Sweden that analyse crime and customers' perceived safety in a shopping mall. The first, by Vania Ceccato, Örjan Falk, Pouriya Parsanezhad and Väino Tarandi, explores Building Information Modelling (BIM) to visualise crime levels of shopping establishments, while the second, by Vania Ceccato and Sanda Tcacencu, focuses on a small-sample survey to analyse how shopping centre visitors evaluate their safety in the shopping centre.

The *meso* and *macro* scales of the analysis of retail crime are exemplified in Part 4 of this book. The *meso* scale deals with retail crime in a wider context beyond the stores themselves, namely the street segments, corners, railway stations and neighbourhood and city contexts. The first contribution looks at shopping crime in Israel and is written

by David Weisburd, Shai Amram and Maor Shay. The second focuses on theft in stores and other businesses in railway stations in England and Wales and is written by Andrew Newton. Then, turning to the *macro* scale retail crime may be local but is triggered by a demand for products far from where crime is committed. This *macro* perspective of supply and demand mechanisms can be appropriated to understand the links between organised crime and thefts of cargo or medicines, for example. With a case study from a country of the Global South, Marcelo Justus, Vania Ceccato, Gustavo Moreira and Tulio Kahn assess the problem of cargo theft in São Paulo, Brazil. Also Ernesto Savona, Marco Dugato and Michele Riccardi focus on ORC to discuss the importance of local and regional contexts to explain theft of medicines from hospitals in Italy.

Part 5 of the book presents theoretical and practical examples of dealing with retail crime prevention. Martin Gill's chapter discusses the challenges of preventing retail losses according to retail loss prevention managers and directors in the UK, followed by a chapter by Aiden Sidebottom and Nick Tilley on tagging in retail environments.

Finally, Part 6 draws together the volume's empirical findings, discussions, and theoretical approaches adopted by contributors coming from a varied of backgrounds. It synthesises and critically reviews the key findings, identifying some of the most important lessons learnt and as well as the relevant challenges. Moreover, it outlines future research as well as policy recommendations and practical lessons that have been demonstrated in this book.

The theoretical framework of the book

The focus of this book is on crime in retail environments and the interplay between products, criminals and settings. Although Criminology and criminologists have been

devoted to better understanding retail crime and its prevention (Clarke, 1999; Clarke and Petrossian, 2013; Gill, 2000; 2007), retail crime research is far from an exclusive area of Criminology. First because retail crime is dependent on models and theories stemming from other disciplines, such as Economics, Management and Business, Psychology, Engineering and Innovation Technology, Police and Policing, just to name a few. Most chapters of this book are written by professionals other than criminologists, which we hope has helped to bring a wide array of theoretical approaches into the subject area. Second, ‘crime against business is an attack on the economics of the businesses’, therefore, retail crime is a business problem and preventing it demands knowledge on both opportunity and financial costs (Bamfield, 2012, p. 7). Third, knowledge about retail crime and the settings in which it takes place are as important to business as is the perception of safety. Businesses need clients but if people feel unsafe while there, they may not return, thus both crime and the perception of safety in retail environments are crucial for businesses. The retail environment has an important role to play in making shopping an enjoyable and pleasant activity. However, too many people may attract pickpockets and thieves, so a key challenge for retailers is to provide a balance between attractiveness and safety in retail environments.

Due to the range of theoretical approaches in the retail literature, this section now provides a brief overview of most salient to the major components of retail crime (as approached in this book), namely the theories that support the understanding of the three analytical scales in this book: *micro* (the interplay between products, settings and offenders); *meso* (the effect that settings and places have on retail crime); and *macro* (local criminal events interpreted as part of a wider context). As this chapter aims to

provide an overview rather than an extensive review, the reader is guided to access each individual chapter to find more details about the theoretical backgrounds used.

The theories used in the *micro*-scale analysis of retail crime in this book rely on two strands of theory that share a number of commonalities but are discussed here separately. The first strand of theory relates to the work of Cornish and Clarke and others (Clarke, 1999; Clarke and Petrossian, 2013; Clarke, 1997; Cornish and Clarke, 1986; Felson and Clarke, 1998) who developed a body of knowledge that provides a theoretical framework for better understanding how offenders think, the way they make decisions to steal and, perhaps more importantly, the factors that can act to deter them (Beck, 2016). Principles of rational choice theory suggest that offenders assess the risk of being caught before coming to a decision; whether they can commit the offence at the particular time and in the particular setting; the benefit of committing that crime; and the consequences they would have to cope with if they were to be caught. Although it is difficult to try to affect the punishment associated with retail crimes, retail crime prevention practices are nowadays able to capture all these factors, making it more difficult for criminals to commit a crime.

Crime is not a random phenomenon; it follows clear patterns in time and in space. If retailers can identify *when* and *where* they are most targeted by crime, they will be able to more efficiently define strategies to tackle crime in their businesses (see section ‘Temporal and spatial patterns of retail crime’ in this chapter). Environmental criminology has long suggested the relationship between crime and rhythmical patterns of human activities. Principles of routine activity (Cohen and Felson, 1979) suggest that for a crime to occur there must be a convergence of a target, a motivated offender and a lack of capable guardians. This might explain peaks of theft in the afternoons instead of

early mornings, or fights outside restaurants after they close. Yet, not all stores become crime targets (Bowers, 2014; Brantingham and Brantingham 1995), and neither are all sections of stores equally vulnerable to crime, nor products equally targeted (Armitage, 2013; Cardone and Hayes, 2012; Newman, 1972; Reynald and Elffers, 2009). Crime pattern theory and principles of Crime Prevention Through Environmental Design (CPTED) are helpful in guiding the analysis that links crime and settings in retail environments as illustrated in this book. Crime pattern theory identifies places and settings (as nodes) that by their characteristics attract or generate crime. In a shopping centre, for instance, there is a clear specialisation in places that generate and attract crime. One way to alleviate these crime spots is to plan environments to make crime more difficult to occur at micro-scale. Research on consumer behaviour has long suggested that placing products in particular areas can maximise profit by selling more and avoiding crime. For instance, shoplifters focus their attention on security devices, formal surveillance, product positioning, security tagging, employee positioning, access control, and store layout (Carmel-Gilfilen, 2011). However, not all products are equally targeted. Hot products are those most likely to be stolen by offenders, and according to Clarke (1999), they are easier to Conceal, they are more Removable, widely Available, Valuable, Enjoyable to use or own, and easy trade or sell on, i.e. Disposable (CRAVED).

Routine activity principles and crime pattern theory are also helpful to support the analysis of retail crime at both the *meso* and *macro* scales as illustrated in this book. Crime pattern theory explains why crimes are committed in certain areas, for instance, on street segments with many stores and restaurants. According to this theory, crime happens when the activity space of a victim or target intersects with the activity space of

an offender. Some of these nodes where people converge, such as a store or a set of stores in a railway station may become hot spots of crime. Whether these spots attract more incidents (Brantingham and Brantingham 1995; Deryol, Wilcox, Logan and Wooldredge, 2016; Franka et al., 2011) or radiate incidents to the surroundings (Bowers, 2014) highly depends on the nature of these hot spots and their urban contexts. Although levels of crime vary over time, the extent of crime concentrations remains similar in particular parts of the city (Weisburd and Amram, 2014) constituting hot spots of crime. This stability has attracted the attention of many scholars to the point that some provide clear evidence of the so-called “law of crime concentration at places” (e.g. Andresen and Malleson, 2011; Curman, Andresen and Brantingham, 2014; Weisburd and Amram, 2014), yet, this is a topic not well addressed in retail environments. Although many of the principles of law of crime concentrations at places hold true for street segments, it can be questioned to what extent these ideas can be applied to typical retail environments and shopping centres.

What regulates retail crime is dependent on the supply and demand of specific products. For instance, cargo theft is an attractive activity since it combines a high return with a low risk of failure. Within Economics and Management, there has been a substantial volume of work on retail crime and prevention. The economic theory of crime proposed by Becker (1968) can help in providing some interpretation. According to this theory, this alternative of choosing to commit a crime essentially depends on two factors: monetary return and the probability of failure. Assuming the mobility of criminals and economic rationality, crimes occur where there is a higher expected utility, and the potential offender evaluates his or her own risk before making a decision to commit a crime. The *macro*-scale analysis of retail crime illustrated in this book involves general

trends of retail crime but also ORC that can be interpreted via the lens of economic and criminological theories. Situational crime prevention (Clarke, 1992; 1983) is one such theory which has been utilized here to understand the motivations of offenders (to offend) as well as of retailers (to prevent crime). This theory involves crime prevention strategies used to reduce criminal opportunities, including ‘hardening’ of potential targets, improving surveillance of areas (making more difficult to steal, increasing risks to be caught), and deflecting potential offenders from settings in which crimes might occur. Chapter 15 of this book directly inform readers about the need to establish theories to better understand the nature of retail crime and its prevention.

Book definitions

Retail crime is more than ‘just’ shoplifting. Therefore, with the intention to flag and reveal different ways of approaching this subject, the contributors to this book were asked to provide their own definitions of the relevant terms to understand retail crime. The results differ, which is not a surprise since these authors all share a genuine interest in a better understanding of the nature of retail crime, they come from a plethora of disciplines, such as Architecture, Geography, Engineering, Sociology, Criminology, Economics, Policing and Political Science. The result of this inquiry into definitions and terms is expected to support the reading of the chapters.

Hot and Cold Products

Taylor defines ‘hot’ products as those ‘items that are typically targeted by thieves either because they have an inherent desirability (e.g. relatively valuable)’ or, she states, ‘they are relatively easy to steal’. ‘Cold products’ relate to those that are not stolen frequently, typically because they are cumbersome (e.g. a double bed) or have low desirability and

value. Hot and cold products are sensitive to time and location, as well as cultural variability. Hunter summarizes hot and cold products as referring to ‘desirability of retail products to offenders to steal based upon perceived value/reduced risk of being apprehended’.

Traditionally, hot products, from the work of Ron Clarke (Clarke, 1999), are those most likely to be stolen by offenders. They are those products that are CRAVED – they are easier to Conceal, they are more Removable, widely Available, Valuable, Enjoyable to use or own, and easy trade or sell on, i.e. Disposable. Smith and Clarke suggest that ‘researchers in this area often cite *Disposable* as being the most important characteristic in determining whether something is a ‘hot product’.

It can be questioned how much the CRAVED model can be applied to ORC, as ORC may involve large loads of products or other valuable cargo that do not fit the CRAVED model. Depending on the demand, a cold product in a store can become a hot product in the ORC context. For example, there are hot products that are not easy to conceal or remove, such as computers, printers but also cheaper products in high demand. For highly motivated offenders, in particular those cooperating with specialised criminal organisations, the size and weight of products matters much less since someone else in the organisation is responsible for transporting stolen materials (it can be a cold product here but hot elsewhere). In some cases, they get access to products using, for instance, bulldozers and bombs (to break in and get access to stocks and stores), heavy weapons (to control personnel and defend themselves), or trucks, helicopters, airplanes, or other vehicles (to carry the stolen load and allow easy escape). Within the context of their research (a store, supermarket) Armitage et al. define hot products as those positioned within the store such that they are concealed from CCTV

or security staff; those products that are small enough to conceal in a bag or under clothing; those products that could be sold on easily, quickly and for a good value; and those products that could be used by offenders in their own day-to-day leisure activities. These products include: alcohol, razors, perfume, make-up, baby products and electronic goods. Chris Joyce adds a temporal dimension to the 'demand' or possible offenders' motivations. He states that hot products are 'products that are attractive to an offender due to economic and market' factors. A hot product may be in demand due to personal circumstances of the end user (which could include the offender committing the theft), seasonal needs (i.e. toys at Christmas) or simply due to it being perceived as expensive or unaffordable to individuals or others within the retail sector (i.e. stolen coffee may be bought by cafes as it's cheaper than purchasing from a legitimate source)'.

Retail Crime

Most of the chapters of this book deal with theft – shoplifting or theft by employees, cargo theft, theft of medicines – so retail crime is often a synonym of a property crime against one or more commercial establishments. But Bamfield's definition of retail crime reminds us that this offence includes other activities than theft; it covers a wide range of illegal activities against people and properties in the retail sector. He says: 'Retail crime can be committed by customers, employees, senior officers of the corporation and by others including organised gangs and other motivated individuals. Retail crime includes virtually every form of criminal activity that can be committed against a retail business, its customers, employees and its reputation, including theft, fraud, impersonation/ID fraud, online crime and fraud, corrupt dealings with suppliers,

violence, burglary, arson and interception of deliveries. It may be small-scale but frequent, such as shoplifting, refund fraud or payment fraud, or large-scale and infrequent such as hacking, large-scale employee fraud or banking fraud’.

Along the same line, Taylor also adopts the term ‘retail crime’ as a broad category of crimes encompassing many different types of criminal behaviour against commercial enterprises. But she adds, ‘it might include fraud, cyber-attacks, shoplifting’. In her chapter, Taylor is interested in the types of crime opportunities and motivations promoted by the technologies at checkouts. She predicts that even if the traditional store checkout remains as part of the retail environment in the future, other payment methods with new technologies are set to dramatically change the process by which products pass from retailer to customer, and therefore affect the nature of retail crime.

As most contributors to this book, Newton does not define the term ‘retail crime’ per se, instead his subject of study reflects how retail crime is operationalised in practice. He focuses on ‘crime against premises (usually shops) that sell goods to the public (and in terms of rail retail these are therefore premises as found within the boundaries of rail stations) as the main expression of retail crime’ in England and Wales. Newton considers these settings as often subjected to shoplifting, defined as ‘the theft of goods from retail establishments carried out by non-employees during an establishment’s opening hours’ (adapted from Smith, 2013, p. 5). Newton suggests that ‘shoplifting is also referred to as ‘shop theft’, ‘shrinkage’ and ‘boosting’’. In his chapter, the term ‘shrinkage’ is avoided, because he reasoned that ‘in the transportation literature this term is also used to describe technological approaches to reduce travel time and increase journey efficiency’ (Newton, 2016). For consistency, Newton adopts the term shoplifting throughout his chapter.

Similarly, in a US case study, Smith and Clarke define in their chapter retail crime as 'shoplifting, employee theft, robbery, burglary, general theft, fraud and any other crime in which a merchant/retailer is the setting for a crime'. For them shoplifting is 'the 'external' theft of merchandise from a store open for retail business by a non-employee. The suspect removes merchandise from the premises without payment and with the intent of permanently depriving the merchant of the item(s)'.

In a UK study by Armitage et al., retail crime focuses specifically on shoplifting from large supermarket stores that sell a mix of groceries, clothing and electronic goods. The authors are particularly interested in the micro-environments of the stores; the way products are placed and the relationship between the shopping environment and the offender. In this particular case, the stores are generally slightly out of town/city centres, surrounded by large car parks (free for users) and other transport terminals (trains, buses). Whilst the offenders they interviewed were searching for a variety of goods, the most sought after were alcohol, clothing, electronic items and toiletries.

A related definition of retail crime is adopted by Hunter et al. in their analysis of motivations of shop theft offenders in an English city. In their chapter, retail crime is a set of offences committed against retailers by customers, such as shop theft. Cozens also characterizes retail crime as shopping crime using a case study from Perth, Western Australia. He suggests that retail crime 'is all crimes in business, crime against trade, organized retail crime, shoplifting, crime in shopping malls, crime in stores, in other words, the theft of goods from premises which sells the goods'.

For Weisburd et al., retail crime is approached using another scale of analysis, namely 'stores in street segments', in Tel Aviv-Yafo, Israel. Shopping crime in this particular chapter includes shoplifting, theft by store employees, burglary, robbery and is defined

as ‘criminal incidents, mainly property offenses that occur in stores that are located in malls or on streets’.

Retail crime and its effect on perceived safety are the focus in chapters by Ceccato et al. and Ceccato and Tcacencu that analysed a shopping centre in Stockholm, Sweden. In this case, retail crime involves a set of offences or incidents that happen in a particular setting. Ceccato (2017) defines two broad categories for crimes taking place in shopping centres: *ordinary crimes* such as shoplifting, thefts, fights, robbery, vandalism, rubbish dumping; and *extraordinary crimes* for their potential impact and organisation, such as drug dealing, cargo theft, theft of equipment, acts of terrorism and crime that uses ICT technology along the product supply chain but that is detected at shopping malls.

Ceccato and Tcacencu investigate crime and perceived safety on the *micro* scale in the shopping centre (the store, the corridor, the bank or the toilet), the *meso* scale (the entire food court, the whole floor of the shopping centre) and the *macro* scale (the shopping centre itself and its surroundings, connected with roads and transportation hubs, hotel and other commercial and leisure areas). This multi-scale, complex retail environment is expected to determine not only the flow of people passing by over time, the types of crime and other incidents occurring there, but also the way people perceive the shopping environment and its security systems. Typically, these micro and meso environments attract shoplifting, burglary, armed robbery, disputes, gang conflicts, intimidation, violence against personnel and/or customers, general fights in restaurants and cafés, property damage (vandalism and arson), theft by store employees, sexual violence and harassment (including rape), hate crime, fraud and other economic crimes. Typical of macro settings involving the surrounding areas of the shopping centre are the misuse of public spaces (e.g. washing clothes in the toilet, smoking in forbidden areas, driving

motorcycles or other vehicles inside the shopping centre), quarrels among people hanging around at shopping entrances and in the food court, drinking and drug selling/use in the immediate environment of the shopping centre. Some of these crimes take place in the shopping mall but are triggered by forces far beyond its walls. Extraordinary crimes would include, for instance, robberies against electronic stores with links between local incidents and ORC.

Also in the book, similar links between local crimes and ORC are illustrated by the Italian case study on theft of medicines in hospitals by Savona et al. and by the Brazilian study on cargo theft by Justus et al. These chapters illustrate that there is an indirect connection between theft, criminal organisations and retail, as stolen goods are often sold on all sorts of black markets. In the context of the Global South, the chapter by Justus et al. points out that retail crime goes beyond property offences. In Brazil, a large proportion of cargo theft is characterised by violent acts (resulting in homicides) against those carrying or guarding goods. Since cargo (whatever its nature) is a product of commercial transaction between two or more economic agents, its theft can be approached as a type of crime against trading and service activities, often orchestrated by more complex criminal organisations. Table 1 illustrates the different types of typical retail crimes discussed in this edited volume as well as crime settings at various geographical scales.

Insert Table 1 here.

Retail crime in this book encompasses a range of criminal activities from shoplifting to ORC (including crimes along the supply chain, such cargo theft), violence against personnel, customers and property, and other minor damaging incidents that despite not

being formally classified as ‘crime’ have an impact on individuals’ safety, damage shopping experience and affect businesses. Retail crime is defined here as any criminal act (intended and unintended) against retail - a store, a company or a conglomerate of companies, their properties as well as their employees and customers. These criminal acts have the potential to affect the overall retail environment (employee and customer safety) and produce damage far beyond the temporal and physical boundaries of stores and establishments where they take place. *Firstly*, because these crimes impact the overall experience of customers and employees, damaging the future reputation of an establishment and/or a business sector, and harming future businesses. *Secondly*, new types of *modi operandi* are facilitated by the use of new technologies with a reach far beyond the crime' location, often a-spatial transactions that harm financial and other private and public institutions. *Thirdly*, retail crime is often not limited to property crime when it involves a chain of organised crime networks with local, national and/or international connections; in some countries, crime against trading involves lethal violence. These ‘indirect costs’ (real or predicted) are rarely taken into account in the current practices of calculating ‘shrinkage’ or ‘total retail loss’.

Retail Environments

A retail crime has a setting or environment in which the offence takes place. As described in the following paragraphs, the setting can take different shapes and can involve many types of places and locations, even when cybercrime might be part of the criminal scheme. In this book, retail environments are often places where crimes against retail and trading occur, such as a store, a supermarket, a shopping centre. Note however that in the case of ORC, crimes may involve other settings beyond stores and supermarkets or supply chain environments, such as storage areas for containers and

truck parking lots, but for example, here we restrict ourselves to the most common types of settings discussed in this book.

For Hunter et al., commercial/retail environments are ‘retail and wholesale outlets that are open to members of the public’. Cozens defines commercial/retail environments as ‘physical environments, premises where goods are offered for sale’. In general, they comprise, according to Bamfield, ‘a range of spaces from a small isolated store in a rural or suburban location to a large superstore or hypermarket, central business district or shopping mall. Each one is designed, not necessarily optimally, to attract customers and hold inventory. As such it is an attractive prospect for retail crime. Although stockrooms, warehouses and physical distribution centres do not deal directly with customers, they hold high levels of inventory and are attractive prospects for crime’. The latter is the subject of interest in the chapter by Justus et al., who focus on cargo theft as a criminal activity against trading. For them, a commercial environment ‘is where the stolen goods are sold to consumers in legitimate stores or on the black market’. And more specifically to retail in transit environments, Newton observes that these settings may involve ‘the premises as found within the boundaries of rail stations’, such as stores, small businesses, and restaurants in rail stations.

The complexity of environments involving retail crime is illustrated by the chapters by Armitage et al., Ceccato et al. and Ceccato and Tcacencu. Commercial/retail environments represent individual stores, small groups of businesses up to shopping centres/malls and outlets. Shopping centres and outlets are often out of town/city centres with a mix of retail stores, leisure activities (cinema, bowling, go kart) and restaurants and bars. Crime prevention in these environments may require tailored measures to attend specific demands from each setting. Finally, in the context of ORC, the chapters

of Savona et al. and Justus et al. suggest that retail crime prevention has to go beyond the stores and supermarkets and have strategies that focus on other supply chain settings and a variety of stakeholders affected by ORC.

Retail Crime Prevention/Retail Loss Prevention

Crime or loss prevention is, according to Bamfield, about ‘avoiding crime and loss by preventing crime, using methods in stores such as notices, display methods, display cabinets, technologies and loss prevention employees to deter theft from occurring by making it difficult/time-consuming to steal, bringing an increased likelihood of detection and apprehension’. Since retail is also vulnerable to economic crimes, Bamfield indicates that ‘similar methods have been developed to inhibit payment fraud, returns-desk fraud, online fraud and other methods of crime’. In summary, ‘loss prevention involves the use of selected techniques to combat or inhibit every form of crime and each method has to be proportional to the actual or potential losses suffered’. Bamfield also reflects upon the types of retail prevention stating that ‘retail crime prevention and retail loss prevention are only equivalent in a general sense’. The current trend towards asking the Security/Crime Prevention/Loss Prevention/Risk Management department to combat losses from business operations (e.g. waste or damage) as well as losses from crime makes some retailers prefer to use the term ‘Loss Prevention’ or ‘Risk Management’. Trends and training also play a part; for example, criminologists generally might usually be expected to refer to ‘crime prevention’ rather than ‘loss prevention’ because of the way the discipline approaches crime problems. There are also national differences: until about 2002, UK retail loss prevention was mainly run by a ‘Security Department’, but in the US it would have been called ‘Loss Prevention’.

UK retailers have since largely adopted the US approach but there now exists a multiplicity of designations, including Loss Prevention, Profit Protection, Security, and Risk Management.

In most of the chapters in this book, retail crime prevention is about methods to prevent crime that occurs in stores and supermarkets, as discussed below. Cozens states that it involves ‘methods used to prevent the theft of goods from premises which sell goods’. According to Hunter et al., it may also involve ‘any form of action including installation of physical security, alteration of the physical layout of retail premises, employment of security staff, or awareness training of retail employees designed to reduce risk of victimization by employees or customers’. Smith and Clarke state that ‘loss prevention’s focus is on preventing losses of all types, including theft and liability due to accidents’, they add: ‘to prevent theft, a wide range of methods to deter, detect and apprehend suspected shoplifters are applied’. CCTV and floor surveillance are according to Smith and Clarke, ‘heavily relied upon by loss prevention associates, sometimes known as ‘store detectives’.

Retail crime prevention may relate also to ‘different measures implemented in stores and in the vicinity of stores’. According to Armitage et al., the concept of prevention should focus upon attempting ‘to deter the offender before the crime takes place, rather than (although the two are not mutually exclusive) catching offenders after the event’. They add: ‘crime prevention measures within the retail environment include CCTV, tagging, security staff, store detectives (plain clothes), mirrors as well as the design and layout of stores including lighting, shelf design, etc.’.

Shrinkage and Total Retail Loss

Shrinkage is unanimously defined by contributors to this book as the total loss of products/goods that can be attributed to shoplifting but also to employee theft, error, loss and damage. They also agree that the way that stores or establishments collect information on loss/shrinkage makes it difficult to distinguish between theft and other contributory factors that reduce their profits. According to Bamfield (in this book), 'shrinkage, both as a value and as a percentage of total sales, is used as a proxy measure of retail crime, acknowledging that shrinkage is difficult to measure'. More formally, Bamfield (2012) states that shrinkage is the difference between the retail revenue expected from deliveries or sales of merchandise and the actual revenue taken by the retailer. In other words, shrinkage (or shortage) is often used to describe 'the difference between the stock a retailer thought they had and what they actually counted or valued in their physical locations' (Beck, 2016b, p. 14).

Bamfield (2017) states that 'the shrinkage value is determined by losses from crime and losses from non-crime. The losses from crime include thefts of property and payment theft as they affect retail revenues. Non-crime losses include: errors in pricing (the wrong price will reduce the store's takings); waste and deterioration (such as product thrown away because unsaleable; lengths of material or carpet too short to be sold; or goods that are damaged in the warehouse or on display); and price markdowns (both seasonal and because inventory is too high). Shrinkage can of course be negative for customers, for example where goods are sold at prices higher than originally planned, payment errors by customers or staff and where staff expertise may ensure that a higher proportion of inventory is actually saleable (for instance, more expensive cuts are produced from a side of beef) or wastage or deterioration is minimized'.

Beck (2016b) suggests that using the term shrinkage (or shortage), as has been done in the past, is problematic since it is difficult to ascertain what categories of 'loss' are included in these calculations. Drawing from his empirical analysis, he states that many companies adopt the concept of 'shrinkage' only for the value of their unknown losses while others incorporate losses from damage, wastage, spoilage, price markdowns, costs of burglaries, robberies and predicted losses, and organised retail crime. There are suggestions in the literature to abandon the term 'shrinkage' in favour of the broader concept of 'Total Retail Loss' (Beck, 2016). In summary, despite the current debate around the use of the terms 'shrinkage' and 'total retail loss', all chapters of this book deal with crime, which means that regardless of the type, crime lies comfortably within the range of costs classified as 'shrinkage' and/or 'total retail loss or shrinkage' as typically used in the current literature in this area (e.g. Bamfield, 2004; Bamfield, 2012; Beck, 2016; Gill, 2000).

Temporal and Spatial Patterns of Retail Crime

Previous research has shown evidence that crime varies in and around retail and commercial environments following patterns of opening hours, often showing different weekly and seasonal variations. For commercial robbery, in particular, the literature shows that there is a potential relationship between temporal variations and the opportunity structure of the environment (Tompson and Bowers, 2013; Van Patten and McKeldin-Coner, 2009). Dark hours of the day create advantageous conditions for anonymity, which can be a decisive factor for the decision-making of offenders. Tompson and Bowers (2013) found that darkness is a key factor related to robbery events in both study areas in London and Glasgow. These authors suggest that poor

lighting conditions, whether they are due to weather conditions or the absence of sunlight, can be a significant obstacle to surveillance and thus have an effect on guardianship, and therefore promote crime. When assessing patterns of residential burglary, Coupe and Blake (2006) demonstrated that the night-time availability of guardians did not deter some burglars, as the darkness prevented the guardians from being capable of monitoring their surroundings (Gill, 2000; Pettiway, 1982; Smith, 2003). Previous research on the seasonality of robbery indicates that street and commercial robbery peak in the winter months, often associated with the Christmas holiday period but also with the darkness (Van Koppen and Jansen, 1999). Cargo theft, considered in this book as a crime against retail and trading, also shows peaks during winter months of the year in Europe, the Middle East and Africa, but after Christmas, it falls (Ekwall, 2009). Ceccato (2015) indicates that in Sweden, a peak was observed in autumn, while in Brazil, cargo theft increases in the spring and autumn but it also decreases after Christmas, reflecting the lower demand for goods (see the chapter by Justus et al in this book).

Research has long shown that robberies and other types of property crimes are concentrated in space, and commercial crime follows particular mixed land use areas, often in city centres (Baumer, Lauritsen, Rosenfeld and Wright, 1998; Cohn and Rotton, 2000; Gill, 2000; Hendricks, Landsittel, Amandus, Malcan and Bell, 1999; Pettiway, 1982). A reason for this pattern is that city centres also concentrate premises that sell alcohol, bowling, cinemas, etc., which generate activities that reproduce problems beyond typical commercial offences, such as violence. The link between violence and the opening hours of restaurants and bars is widely recognised in studies in the US, Sweden, Norway and Australia (Burgason, Drawve, Brown and Eassey, 2017;

Menéndez, Tusell and Weatherburn 2017; Rossow and Norström, 2012; Wingren, 2014).

Insert Figure 1 about here.

No evidence was found for the effect of opening hours on violence at a Swedish shopping centre despite the fact that it was expected that violent encounters would peak after the bars would close (Figure 1a). The daily peak for all incidents, including violence, actually occurs between 17:00 and 21:00. Note that after school hours, the shopping centre attracts youngsters to particular settings, often with no guardians around (e.g., bowling, parking lots, libraries and game facilities). Since most burglaries take place overnight, most cases are registered at the shopping centre opens its doors (Figure 1a). In a shopping centre in Stockholm, Sweden, shoplifting and thefts show peaks in the afternoons and evenings, Tuesdays, and from winter to early spring (Figures 1a, b and c) (Ceccato, Falk, Parsanezhad and Tarandi, 2017).

It comes as no surprise that crimes show clear patterns in space, in street segments in particular. For instance in Boston from 1980 to 2008, Rengert et al., (2010) show that robberies are highly concentrated on a small number of street segments and intersections rather than spread evenly across the urban landscape. At the scale of the store, research indicates links between the layout of the stores, offenders' decision-making and levels of property crimes, in particular shoplifting and robberies (Cardone and Hayes, 2012; Ekblom, 1986; Gill, 2007; Kajalo and Lindblom, 2011). In a Swedish shopping centre, Ceccato, Falk, Parsanezhad and Tarandi (2017) show that crime of all sorts tends to be concentrated in space. They also indicate patterns of concentration in

certain facilities: 64% of all incidents happen in 10% of micro places in the shopping centre, in particular the food court followed by two fast food restaurants, close to the entrances. As regards to thefts and pickpocketing, Poyner and Webb (1995) have suggested that small distances between tables would facilitate the ability for thieves to pass, grab a bag and leave.

In summary, the reader might notice that there is little difference between definitions, simply minor variations that display the different focus of the individual chapters. The result of this inquiry into definitions and terms has indicated a clear multidisciplinary take on the subjects in question. The scale of analysis (micro, meso, macro), the nature of the subject of study (offender, settings, networks, technology) and country contexts (Australia, Brazil, England, Israel, Italy, the UK and the US) impose a plurality to these definitions that is worth summarising, as it is done in this section, to support the reading of the chapters.

Final summary

The book is composed of 6 parts and 16 chapters; it offers a new take on retail crime and its prevention by bringing international evidence and a multidisciplinary perspective to a subject that is of high relevance to both researchers and practitioners. The focus of the book is on crime in retail environments, and the interplay between products, criminals and settings. Examples include stores, commercial streets and shopping malls but also the wider context of situational conditions of the supply chain in which crime occurs. Instead of trying to compress the richness of the common terms used by different scholars into a homogenized standard, neglecting the existence of multiple concepts coming from a multidisciplinary field of research, this chapter reveals

some of the differences among authors' basic definitions in retail crime and prevention, as revealed in the book chapters. Retail crime is defined here as any criminal act against a store, an establishment or a conglomerate of companies, their properties as well as their employees and customers. Some of these crimes are composed of multiple events, some taking place far beyond the boundaries of the store, affecting stakeholders along the product supply chain, as illustrated by Organised Retail Crime (ORC). Although this book is grounded in environmental criminological theory and principles of situational crime prevention, it approaches retail crime from a multidisciplinary perspective, with contributors coming from other related disciplines, such as Economics, Political Science, Engineering and Urban Planning. The book also offers state-of-the-art research on retail crime with lessons from Australia, Brazil, Israel, Italy, Sweden, the UK and the US and puts forward a number of new directions in retail crime research and prevention practices.

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Chapter 1 - Tables

Table 1.1: – Retail crime at various geographical scales and its main stakeholders.

Scale and retail crime settings	Typical retail crime	Stakeholders
<p>Micro scale: Retail crime linked to product settings and store environmental features</p>	<p>Shoplifting, burglary, theft by store employees, robbery, disputes, intimidation, violence against personnel and/or customers, fraud and other economic crimes. A local criminal incident can be ORC, with 'glocal' impact.</p>	<p>Establishment owners, retailers, retail chain managers, security officers, guards, police. In the case of a shopping centre, perhaps managers and owners of other commercial and entertainment establishments.</p>
<p>Meso scale: Retail crime in groups of businesses in shopping centres, a neighbourhood and city contexts</p>	<p>The above plus public disorder, problems with alcohol, drug dealing and consumption, general fights outside restaurants and cafés, property damage (vandalism and arson), weapons, riots, conflicts with the police, typical mixed land use/inner city crime.</p>	<p>The above plus neighbourhood and city actors, police, urban planners (municipality), road and transportation authorities and operators, commercial consortiums.</p>
<p>Macro scale: Retail crime with regional, national, international, global (glocal) links.</p>	<p>Any crime against the supply chain, cargo theft, fraud, corruption, counterfeit, any criminal act related to organised retail crime with regional, national and/or international links, such as threats and physical violence, cybercrime. ORC (regional, national, international, global).</p>	<p>Product suppliers, retailers, logistics and transportation companies, storage companies, export/import officers, local, regional and national transportation and security officers</p>

Picture sources: Authors, 2016 and Pixabay, 2017.

Chapter 1 – Figures

Figure 1.1: Temporal trends of crimes in a shopping centre: (a) daily, (b) weekly and (c) monthly patterns.