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Fraud events in the coolest of neighbourhoods: A case study from Gothenburg, Sweden

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Abstract

In the current study credit card frauds are analysed. Concepts are taken from crime pattern theory and place-based criminology. The empirical material originates from the urban nightlife of Gothenburg, Sweden, and combines quantitative and qualitative data from different sources. Instead of focusing on the individual's specific motives for committing crimes, the study has its interest in how place can play a part in fraud events and be a necessary condition in the crime modus operandi. In the conducted analysis, we can clearly see that place matters in the crime series studied, and that the place was not randomly chosen by the offenders.

Keywords Fraud events · Socio-spatial elements · Offender-decision making · Sweden

Introduction

Fraud is usually considered a crime driven by subjective strain, opportunity, and rationalization (Gui & Mailley, 2015). Alternatively, highly skilled fraudsters are often seen as “con artists”, or masters of the “confidence game” (Konnikova, 2016).

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The organizational setting, with single actors mastering what could be termed artistry, is noted in classical studies (Cressey, 1953). However, place characteristics and socio-spatial elements are hardly ever addressed in fraud studies. The lack of such studies is manifested in our paper. Although fraud events nowadays are a huge part of the online world, we will explore the vested connection between fraud and the city, especially fraud events in attractive urban spaces, or entertainment districts. Here we find a typical combination of cultural codes regarding fun/pleasure and risky facilities, in terms of bars and night clubs, convenience stores and bus routes, etc. (Eck, Clarke & Gurette, 2007).

In the study presented in this paper, a specific urban area, Andra Långgatan, a street in Gothenburg, Sweden, is the centre of attention. Also, a particular type of crime, namely credit card fraud, is of interest. Specifically, we will conduct an analysis of a series of crimes which occurred between 2018 and 2019 at Andra Långgatan. And so, the aim of the study is to explain the relationship between the series of credit card frauds and the socio-spatial interactions in the crime situations. Instead of focusing on the individual's specific motives for committing a crime, the study is interested in how the influence of socio-spatial elements and place itself become a necessary condition in fraud events.

In line with previous research on crime patterns and crime places (Brantingham & Brantingham, 1984, 1995; see also Wortely Et al., 2019), this study analyses how social life and spatial conditions affect both everyday life and decisions made by offenders at Andra Långgatan street. Instead of merely relying on area-specific descriptive statistics (crime statistics and demographic data), this study combines quantitative and qualitative data from different sources when exploring elements in the socio-spatial environment that are required to facilitate fraudulent activities.

Next out in the introduction, our case for the study will be presented, thereafter we briefly summarize previous research on fraud and our theoretical framework, followed by the method section, results and a discussion. In the latter we highlight the importance of various segments in the street environment, activity fields of the perpetrators, and the socio-spatial elements in the crime series studied.

Framing the case

Andra Långgatan has lent its name to an area covering several streets and blocks, connected to the square of Järntorget in central Gothenburg. This street is alley-like and quite long, nearly seven hundred meters in total, and the layout of the surrounding streets is partly the same. The area is a mixture of housing from early in the twentieth century, blended with housing from the 1970's to 1990's built on plots formerly used for small industries. The area is an urban grid of three to six storey houses built in stone and brick. The street owes its name to an inspiration from US urban planning, where numbering streets has been common. The street in focus is Andra Långgatan, which is the second of four lengthy streets in the vicinity: The first (*Första*), third (*Tredje*) and fourth (*Fjärde*) Långgatan.

Andra Långgatan is well-known for its night life, it offers a combination of shops, hairdressers, housing with bars, restaurants, and nightclubs at street level.

Porn shops and strip clubs, albeit now fewer than they were 20 years ago, has a long history in the area, reaching back to the heydays of dockworkers and sailors in Gothenburg. Former auction houses and cinemas in the area have been turned into pubs and stages where music is performed. Mainstream commercial brands such as McDonalds and Starbucks are not represented in the street area. In February 2020, in their pick of “less-touristy districts”, *The Guardian* (2020) included the area as one of the “10 of the coolest neighbourhoods in Europe”. Less polished, and without hyper-stylish spots “when it comes to entertainment, this part of Gothenburg brims with opportunities”.

On the other hand, during a safety walk conducted at Andra Långgatan in May 2019, the street was described by residents as lacking proper streetlights and as having a low degree of maintenance; the street paving was in bad shape. The safety walks also described noise and disorder (around bars), traffic related problems and the selling of drugs in the streets. According to the police, crime, and violence, together with prostitution and illegal taxi services has been disruptive features for many years.

In our case, with the series of credit card frauds, the court material refers to three men that were convicted of sixteen offenses (including some cases of arbitrary conduct and money laundering). The co-offenders included more perpetrators, who couldn't be identified by the police. The convicted offenders worked in different teams to conduct the crimes. These crimes followed a series of sequences that together formed a modus operandi-route, or a crime script (cf. Cornish & Clarke, 2002; Keatley, 2018). For the most part, the trio used Andra Långgatan to find and select their victims, mainly targeting middle-aged males during weekends after bars had closed. By offering illegal taxi services or drugs, the men lured their victims into a car. After that, their credit cards and codes were taken from them and illegally used at local shops, petrol stations and ATM-machines, mainly in the vicinity of Andra Långgatan. One ATM, situated in the nearby square of Stigbergstorget, was frequently used for the frauds.

As can be seen in Fig. 1, in which we have outlined the modus operandi-route in the fraud events, the series of crimes were conditioned or dependent on street connectivity and easy access (in terms of parking, using roads, etc.). Also, low social interaction in the street meant not getting disturbed or detected. These two conditions are of course necessary for the crime series, but they do not fully explain the socio-spatial elements in the run-up of the actual crime events.

Andra Långgatan is connected to three other streets (Första Långgatan, Tredje Långgatan and Fjärde Långgatan), and to two squares (Järntorget and Masstuggstorget). In the direct vicinity, there is Linnégatan, which is another popular nightlife street, and Järntorget, a hub for public transport. In both the court material and in the crime statistics, two of the streets, Första Långgatan and Linnégatan, and the square, Järntorget, were indirectly or directly related to the series of fraud events. Hence, there is a constant flow of people – potential victims, for example – towards Andra Långgatan, coming from both near and far.



Fig. 1 Modus operandi-route in the fraud events. Starting at point one, credit cards offenders and victims meet up, travel to point 2, where secret codes are taken by, for example, shoulder surfing, arriving at point 3, where the actual fraud takes place

Previous research on fraud

Fraud research usually focuses on the actors involved in crime, especially the offenders. Motives, personalities, and socio-demographic factors have been at the centre of many studies. Another factor is what characterizes fraud and the developmental trajectories of offenders compared to related types of crime, such as white-collar crime (van der Geest et al., 2017; Levi, 2016). Similarly, fraud victimization and their correlations have been subject to studies (Holtfreiter, Reisig & Pratt, 2008) as well as how opportunities for crime occur and are exploited (Engdahl, 2022). The way in which fraud is organized and is carried out, the offenders' modus operandi, "tricks of the trade" and their target-of-choice, has also received some attention, for example regarding credit card fraud (Jackson, 1994; Levi, 1998, 2008; van Nguyen, 2022).

Studies focusing on the interaction between offenders and victims of fraud are rare (Harrington, 2009; Laroche et al., 2019). Studies carried out on location and socio-spatial elements are almost non-existent. This is somewhat paradoxical because fraud is a typical metropolitan crime with an opportunity structure coupled with the crowded and interactive character of a modern urban landscape (Braucher & Orback, 2015). Studies on where and when crimes are committed, with time indications and geographical data, are overall not included. A study on near repeat victimization for fraud and other economic crimes in Fort Worth, Texas (Powell et al., 2019), a study on victims' sociodemographic characteristics and hot spots for romance fraud in England and Wales (Sinclair, Bland & Savage, 2023), and some studies of displacement effects between cities in Canada during crime waves with stolen and credit cards (Mativat & Tremblay, 1997), are among the few exceptions.

However, they all point out that frauds tend to follow well-known general crime patterns in terms of near repeat victimization, concentrations of crime in time and place, and the significance of place-time interactions to understand crime events.

Theoretical framework

The theoretical framework of this study integrates notions from both crime pattern theory and offender decision-making to provide an understanding of the relationship between crime and the socio-spatial elements in the crime situation (for an overview, see Thodelius & Ceccato, 2022).

Crime pattern theory (Brantingham & Brantingham, 1984, 1993; 1995) emerged from routine activity theory (Cohen & Felson, 1979) and stresses the interface between opportunity (to commit crime) and motivation (to commit crime). In Brantingham & Brantingham's work (1984), the study of the place itself becomes crucial, mainly since it can offer clues to the offender's perception of social and spatial conditions and signals. Offenders will search for a suitable place to commit a crime by acknowledging their individual knowledge of place and their individual motives for committing a crime (Brantingham & Brantingham, 1984).

During the search process, the offender also reads the place-specific signals, such as spatial, physical, cultural, and legal signals in the area. The interpretation of these signals is both related to interactions and objects/victims. The reading of interactions is used to identify the willingness of residents in the surroundings to interfere and/or to report a crime. For example, if the place has litter and graffiti, is "loud" due to drinking and deemed "immoral" due to strip clubs and porn shops, this can be read as a signal of incivility, or tolerance for deviance, in the locale area. The interpretation of suitable objects/victims is more related to their profiles – if the targets can be seen as both profitable and weak, and easy to deceive (cf. Brantingham & Brantingham, 1993, 1995).

In the current case of credit card fraud, we can see that motives are rather instrumental (e.g., the reward of the crime is not instant), and by proxy the offender needs to find a suitable place, suitable victims and be able to plan the crime ahead. In other words, they must enact the risky facility, that is, bring out potential crime opportunities in bars, strip clubs and gas stations, and so forth (cf. Linning & Eck, 2021). Decision-making in these crimes is different from affective crimes, which are more situated in emotions and work with instant rewards.

However, offender decision-making in a certain place at a certain time is not only related to the offender's perception of the immediate environment, but also to the offender's awareness-/activity field (Brantingham & Brantingham, 1995). An awareness-/activity field is based on paths and nodes connecting places for routine activities (school, work, recreation). Crime tends to occur at places where offenders' and victims' activity fields intersect, and where specific nodes and/or paths interact (Brantingham & Brantingham, 1993, 1995). Thus, place means mainly street segments or addresses, in our conceptual framework (Eck, 2018).

As is well-known, crime concentration tends to occur in certain areas. It is often the result of a certain use of place, certain users of place, or a high density of risky facilities (Eck, Clarke & Gurette, 2007; Weisburd Et al., 2016). Place management come into play as well, due to how place is operated by owners and employees, not least at the street level (Thodelius & Ceccato, 2022; Eck, 2018).

Crime concentrations can also be identified at a microgeographic level, so called “pockets of crime” (St. Jean, 2007), which can generate or attract crime for different reasons (Brantingham & Brantingham, 1995). Microgeographic crime concentrations, or frequently used crime places, are also understandable when stressing the importance of spatial interactions (Bernasco & Steenbeck, 2017; Gerell, 2018). Spatial interactions, in brief, can be defined as the way places interact, by defining how individuals move between places and how different facilities can influence nearby places. A criminogenic place can either be so due to its own socio-spatial element, or by proxy due to nearby places or facilities, functions, and routines, what is “nearby and around” (cf. Weisburd Et al., 2016).

In relation to these theoretical underpinnings, the study presented here will dissect socio-spatial interactions in how the offenders find and target their victims at Andra Långgatan – related to a concentration of risky facilities (such as bars), and the offenders’ legal activity fields together with illegal activities in the street. In this way, the study will both explain high crime opportunities and individually perceived opportunities in the presented environment (cf. Braga & Clarke, 2014).

Material and methods

To fulfil the aim of the study, namely, to explain the relationship between the crime series and the socio-spatial elements in the crime situation, especially how place can play a part in the fraud events and be a necessary condition in the crime modus operandi, we applied a mixed-method approach for our study (Creswell, 2014). The mixed method approach seemed suitable as it allows both mapping and explanation of the patterns by combining both quantitative and qualitative analysis (e.g., applying convergent parallel mixed method). In line with Creswell (1994), this approach compares and relates the quantitative data with the qualitative data. In this way, the findings can be interpreted and help us explain *how* the problem is constructed and *why*. This, will in turn, give a firmer theoretical explanation to the case, instead of only report the crime problem.

The data used in this study was collected in relation to a collaborative project between the University of Gothenburg, Chalmers University of Technology, and the Swedish National Police Authority (Police Region West). The data can be categorized as secondary, since it was collected by other actors for a different purpose, and not produced or collected by any of the paper’s authors. The material collected for the study included:

- Crime statistics at Andra Långgatan between 2016–2019 from Police Region West

- Socio-demographic and spatial data for Andra Långgatan from Gothenburg municipality for 2019
- Minutes taken from so-called safety walks at Andra Långgatan from May 2019, conducted by business owners, residents and local police
- Court adjudgment and court documents regarding the specific series of credit card fraud in 2018–2019 (Police Region West: Protocol AM-1992–19 and Gothenburg Lower Court: Case B 13693–19)

The analysis was conducted in three steps. First the numeric data from reported crime, sociodemographic and spatial data was summarized descriptively and mapped at different street segments of Andra Långgatan on a street layout (cf. Nolan & Heinzen, 2014). The density of residences, bars and nightclubs was calculated and mapped manually over the street layout. Both the descriptive analysis and density of residences, bars and nightclubs were calculated in the statistical Package for Social Science (SPSS), version 28. This first step made it possible to visualize certain hotspots for crime, and concentrations of residences and risky facilities at a street level.

In the second step, the minutes from the safety walk was analysed with content analysis (Krippendorff, 1980). The minutes was coded in relation to four themes: (1) places for drug-dealing, (2) places for illegal taxi services, (3) places for crime signals (e.g. vandalism, graffiti, littering) and (4) unsafe places. The result of the analysis was then mapped out on the street layout to visualise and identify conjunctions and differences between clusters of perceived crime occurrence, crime signals and reported feelings of fear and hotspots for crime, and concentrations of residences and risky facilities at Andra Långgatan street.

The third step was a content analysis of the court adjudgment and court documents, which was coded in relation to the offender's described activity fields and modus operandi-route in the fraud events. Results in this step were mapped on the street layout to visualize intersections with the previous analyses, the result was also interpreted relation to our theoretical framework (cf. Heaton, 1998).

These three steps taken together, made it possible to conduct an analysis with an emphasis on explaining how the problem is constructed and why, with a focus on socio-spatial elements (cf. Creswell, 1994). The analysis was conducted by two of the authors, but all four authors had access to the material and during the process the whole group discussed the theoretical implications of the patterns that occurred.

Results and discussion

In this section, we will first present our findings in relation to the street. This means in terms of the concentration of frauds committed in general, of the disorder noted during the safety walks, of concentrations of risky facilities, of businesses and residences, and of living conditions at a street level. Secondly, the mappings of conducted crime series will be presented. Finally, we will address socio-spatial elements which can supply necessary conditions for the modus operandi-route.

Defining the structure and the density of the street(s)

As stated above, Andra Långgatan is approximately 700 m long, and consists of a mix of functions such as residences, businesses and restaurants, bars, and night clubs. As seen from police statistics, 61 cases of frauds were reported between 2016–2019, with a high concentration at weekends (57.4%). The number of residences was 734 (1.05 per meter on average), the number of businesses was 189 (0.27 per meter on average) and numbers of bars and nightclubs were 28 (0.04 per meter on average). However, the average concentration varies a great deal at street level, which we argue influences *where* the offenders find and target their victims in the series of credit card fraud we analyse.

As seen in Fig. 2, Andra Långgatan can be described as a triplet of street segments with certain conditions for social life and different opportunities for crime occurrences. Although there is housing in all three segments the number and the connection to street level differ. In the first part of the street, from the conjunction of Järntorget/Linnégatan to the first parallel street (Nordhemsgatan), there is a relatively low concentration of residences, and it can thus be described as a business and nightlife district. The second part of the street, between Nordhemsgatan and Värmlandsgatan, can be described as an in-between area. Hence the number of residences is lower compared with the first and the third parts of Andra Långgatan. In addition, the second part attracts different visitors depending on the hour, since it both includes an upper secondary school, stores, and a strip club, *Wandas Exotic Night Club*. The third part of the street located between Värmlandsgatan and Mastuggstorget – has the structure of a residential district, since most of the buildings have been built specifically for housing. The entrances to the residences are also



Fig. 2 Three segments on Andra Långgatan. V denotes shops/businesses and the number of floors used, B denotes housing and the number of floors used. The green dot is the credit card offenders' preferred parking lot

separated from street level compared to the first two segments. However, due to the increase in numbers of dwellers, the passing in/out of the housing complexes' gates are frequent.

The street has a great variation related to place, use of place and place users, which indirectly or directly affect crime occurrence and perceived safety in the area. In the Safety walk conducted together with the residents at Andra Långgatan in 2018, three problems were addressed: drug dealing, illegal taxi services and disorder, mostly occurring in the shape of rowdy behaviour. In the third street segment, with a high concentration of residences, disorder and traffic were pointed out and, in the first segments of the street, drug dealing, and disorder were perceived as a major problem. This can also provide a clue as to why the sequence in which the offenders search for and target their victims, was a specific pocket of crime in the second street segment, "hidden" between two sites which attracted different overt crime situations. Also, the crime pocket was in the segment with a smaller number of dwellers, making the crime harder to detect.

These internal differences, at street level, are crucial to the actual fraud events, we argue, as they create the stage for the confidence game to unfold. The series of fraud events did not unfold randomly in Andra Långgatan, instead they were concentrated to the second part of the street, within a specific pocket of crime.

Activity fields, spatial layout, and pockets of crime

As noted by Brantingham and Brantingham (1993;1995), the offenders' activity field specifies *how* the offenders find crime places and *how* they use their knowledge to interpret spatial, physical, cultural, and legal signals. In the court material it becomes clear that three offenders are well acquainted with Andra Långgatan and the surrounding areas, especially Järntorget. For example, they have both visited the area for recreation and for perpetrating other types of crime, mainly selling drugs, delivering illegal taxi services, and committing minor thefts.

Going back to Fig. 2, the perpetrators activity fields are mainly concentrated in the vicinity of the second non-residence part of Andra Långgatan and the nearby conjunction of Linnégatan and Järntorget (segment one). The illegal activities, such as drug dealing and illegal taxi services, took place in both the first and second segments of the street, the fraudulent activities were only carried out in the second segment.

In our interpretation of the court material, the offenders are aware of the cultural differences in the street since they approached their victims in different ways. Even if the general modus was to offer a ride home (illegal taxi services) after a night out, they tended to offer a ride home at Järntorget, but at Andra Långgatan they also offered drugs and/or escorts, which indicates that they were aware of the variety of cultural norms within the street. It could be considered that these signals are vital for the confidence game per se – without detailed street knowledge, the perpetrators cannot play their targets: "Hi there, what do you want, I do girls, drugs, gypsy cabs, you name it." Also, they can presumably present themselves as trustworthy,

regarding illegal trading: “Even better, I know where the cops are placed and how to get away in the area.”

Furthermore, according to police sources, most of the victims in segment two have forgotten almost “everything” in the interrogations, which might indicate that they have also been perpetrators, searching for drugs or for female prostitutes working for the strip club. One of the targets, in fact, recalls a moment of “shoulder-surfing”, he: “thought that the gas [for the illegal taxi service] was his payment for the cocaine he had been promised, and for the little lump of hashish they used in the car” (B 13693–19). The day after he noticed that his credit card was gone, and that 15 000 Swedish kronor had been taken from his bank account, with a withdrawal form an ATM at 02.38, in the vicinity of Andra Långgatan (at Stigbergstorget, see Fig. 1).

Going back to the first sequence of the fraud, namely, the perpetrators’ choice of place to search for and target their offenders, by looking at the spatial layout in the street, we can see how the second mid-street segment of Andra Långgatan has created a specific crime pocket (cf. St. Jean, 2007). This crime pocket is not only a good place for finding victims, since it allows the offenders to meet up individuals walking from *Wandas* across the street and/or the third segment of Andra Långgatan, who are heading down to the transport node at Järntorget. The crime pocket also facilitates the modus operandi-route by allowing the offenders to have the car parked at Värmlandsgatan gaining easy access to gateways out of the area (see the small green dot, in Fig. 2).

A crime pocket, in other words, enables a crime, both by offering suitable victims and by allowing the offenders with easy access to the car and with good connectivity to necessary nearby functions, such as ATMs, gas stations and late-night convenience stores. All in all, this stresses the notion of spatial interactions, namely that a crime pocket is dependent on nearby places to facilitate criminal occurrences.

Modus operandi as conditioned by socio-spatial elements

In the study, the offenders’ legal and illegal activity fields follow almost the same pattern, which underlines the notion that knowledge of place and of socio-cultural norms is of importance to be able to succeed with series of crimes like these. In addition, since the offender also invites the victim to take part in an illegal activity (such as illegal taxi, escorts, or drugs), the offenders know that some visitors in the area had a slightly positive attitude to norm- or law-breaking behaviour.

However, the illegal activities at the street segment are also dependent on the spatial layout and functions in the area. As addressed above, place itself can enable the crime through “misuse” of everyday functions, such as nightlife flows and parking spots nearby. The offenders do not only take advantage of the social and cultural codes in the area, but they also take advantage of the spatial conditions. This might indicate that the perpetrators are consensually targeting certain victims and ignore the multi-criminogenic site (the first part of Andra Långgatan) and the residential site (the third part of Andra Långgatan) to avoid attention from the police or the residents who are there for other purposes. Thus, they took advantage of, and were

conditioned by the difference between disorder and order, in terms of avoiding the first segment which is often visited by the police and the third segment, with a high concentration of residents with active eyes on the street.

Conclusions

Credit card fraud is a type of crime that has traditionally been met with reactive responses. However, credit card frauds also have a crime pattern which can be linked to a confidence game involving the uses of several locations in the city. In this paper the aim has been to explain the relationship between a series of credit card frauds from 2018 to 2019 and the socio-spatial elements in the crime situation. Instead of focusing on the individual specific motives for committing a crime, the study has as its interest the way in which place can play a part in fraud events and be a necessary requirement in the crime *modus operandi*. In the conducted analysis, we can clearly see that place matters in the run-up of the crime series studied, and that places were not chosen at random.

Place, street segments or addresses, enables, and set conditions for the criminal act. On a macro level, this occurs with connectivity and access to necessary conditions and functions. On a micro level, it is in relation to the intersection between legal and illegal awareness of spatial interactions. By reading and using socio-cultural signals, the profiling of a victim was facilitated, and by using the spatial elements in the urban layout, credit card frauds could be committed.

A paradox and potential undertaking are that understanding these spatial relationships is crucial to perpetrators and crime preventers alike. However, there lies a responsibility on the authorities with urban planning instruments to also adapt to fluctuating crime patterns (rather than simply observing and assigning task groups). There is today a possibility to be wise before rather than after the event.

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Author's Contribution Thodelius 70 percentage (collecting data, analyzing data, theorizing the case, drafting the manuscript), Björk 20 percentage (project management, secondary analysis, minor theorizing and drafting), Lindahl 5 percentage (working with maps and commenting on architectural issues), Engdahl 5 percentage (writing the overview of the research on fraud).

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Declarations

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