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The occurrence of diffusion of benefits

A systematic review of the circumstances behind a hot spot policing effect

ELIN SANDKVIST

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Malmö Högskola
Hälsa och Samhälle
205 06 Malmö

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Throughout the years it has been suggested that some places attract crime more than others. Those places are called hot spots of crime and the knowledge of them have contributed to the emergence of hot spot and targeted policing interventions. Hot spot policing is often discussed together with effects such as displacement of crime and diffusion of benefits. Through a systematic review of earlier studies that report or examine a hot spot policing effort or experiment this thesis aims to investigate the circumstances behind diffusion of benefits. No apparent commonalties or correlations are found between the different types of interventions regarding when diffusion of benefits occur. It can be concluded that the phenomenon is very complex. The results are analyzed and understood with the help of routine activity theory and rational choice theory. This thesis adds to the body of evidence that more studies with diffusion of benefits in focus need to be conducted. By understanding when, where and why diffusion of benefits occur the knowledge of crime prevention increases and also increases the knowledge of how to design the interventions to reach the best preventive gains.

Keywords: crime prevention, crime prevention effects, diffusion of benefits, displacement of crime, hot spot policing, place-based intervention

Förekomsten av positiva spridningseffekter

En systematisk översikt av omständigheterna bakom effekten av en polisiär platsbaserad intervention

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Genom åren har det konstaterats att brott inte sprider sig jämnt över ett länskap. Istället har det visat sig att vissa platser är mer brottsattraktiva än andra. Dessa platser kallas ofta för hot spots och kunskapen om dessa har bidragit till framväxten av platsbaserad och platsspecifika brottsförebyggande insatser. I samband med dessa insatser diskuteras ofta effekter såsom omfördelning och positiva spridningseffekter. Denna uppsats ämnar att undersöka omständigheterna bakom framförallt positiva spridningseffekter. Omständigheterna bakom positiva spridningseffekter har undersökts genom en systematisk översikt av studier som rapporterat om eller utvärderat en platsbaserad intervention eller experiment. Inga uppenbara gemensamma faktorer eller samband kunde urskiljas mellan de olika studierna gällande när positiva spridningseffekter sker och det kan konstateras att fenomenet är mycket komplext. Resultaten analyseras och förstås med hjälp av rutinaktivitetsteorin samt genom teorin om rationella val. Uppsatsen bygger på bevisen om att fler studier med positiva spridningseffekter i fokus bör genomföras. Genom att förstå när, var och varför spridningseffekter sker ökar också kunskapen om de preventiva insatserna och hur de kan designas för att nå bästa möjliga resultat.

Nyckelord: brottsprevention, brottspreventiva effekter, hot spot policing, omfördelningseffekter, platsbaserad intervention, positiva spridningseffekter

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1. INTRODUCTION

Throughout the years it has been suggested that crimes do not spread evenly across a landscape. Instead, there is evidence that some places attract crimes more than others. It has even been said that these small places, hot spots, generate half of all criminal events. Even the most crime exposed neighborhoods tend to have some locations that cluster crime while other areas are relatively spared from criminal events. Researchers have argued that the total crime rate could be reduced if police interventions were focused on these hot spots (Braga, Papachristos & Hureau, 2012).

Hot spot policing has become a more and more popular method to prevent crime within police departments. This type of policing typically means place-based strategies where police concentrate their efforts in small geographic areas (hot spots) such as an address, block or subset of a neighborhood (Kochel, 2011). Interventions such as directed patrols, proactive arrests and problem-oriented policing have shown to have an important impact on crime prevention and result in positive outcomes. However, critics of hot spot policing argue that interventions of that type lead to effects such as displacement of crime (Braga et al., 2012). Displacement of crime means that crime “*move around the corner*” (Weisburd, Wyckoff, Ready, Eck, Hinkle & Gajewski, 2006:252) - that is, criminals move to places where there are no focused interventions. Thus, there seems to be no sufficient evidence for this statement since available research indicates that hot spot policing are more likely to be associated with diffusion of benefits (Braga et al., 2012; Barr & Pease, 1990).

Displacement of crime is discussed as a limitation in hot spot policing and that the effect makes the prevention insignificant. Diffusion of benefits on the other hand could be an effect that enhances the efficacy of this preventive approach. This is where I find the focus of this thesis. To what extent does it occur? Does every intervention have the possibility to elicit diffusion of benefits? The knowledge of when, how and why diffusion of benefits occur may contribute to a possibility of adapting preventive interventions to make sure they result in the best outcome, both at current hot spot and neighboring areas. Improved knowledge of diffusion could probably benefit crime prevention in terms of situational interventions at high-activity crime hot spots.

Despite the fact that most researchers have not explicitly had the aim of looking for evidence of crime prevention effects such as displacement of crime and diffusion of benefits, many of them have come to the conclusion that they are both very possible outcomes. This raises important research questions regarding under what circumstances (types of measures, offenses and jurisdiction) displacement and diffusion are likely or unlikely to occur.

1.2. Motivating aim and research question

This thesis takes its point of departure in the above raised research issue. The overall aim is to investigate the circumstances behind diffusion of benefits. Of special interest is to examine the possibility of correlations between the timing of diffusion and if the phenomenon needs to be preceded by any special attributes. At a later stage, this will hopefully lead to interesting inputs for future crime prevention work.

The thesis is led by the following research question:

- *When diffusion of benefits occurs, are there commonalities in the preventive efforts?*
- *Under what circumstances is diffusion of benefits likely to occur?*

Diffusion of benefits is of interest since this effect can be used to improve the knowledge of situational crime prevention. Certainly, displacement is important, but if we can understand when and how diffusion occurs it may be possible to prevent displacement which is described as a negative consequence. Moreover, previous research has mostly focused on displacement and this is another reason why I choose to focus on diffusion of benefits in this thesis. When aiming to investigate “circumstances” in the research question I particularly refer to type of intervention, setting, offender and type of crime.

1.3. Background

When the Chicago school brought the approach environment’s and society’s influence on the individual, focus in criminology shifted from seeing only individual factors as sources of crime to looking at crime as a product of society (Sutherland, 2007). This later brought the situational approach of crime on to the field of research and scholars made more and more importance of the interaction between individuals’ and environments’ effect on criminal events (Clarke & Eck, 2005). It was in the mid-1980s that crime at hot spots started being examined by researchers. Lawrence Sherman was together with his colleagues perhaps the one conducting the most influential study in this area. When looking at crime addresses in the city of Minneapolis they found that only five percent of the addresses accounted for 50 percent of the crime calls to the police. Similar findings were reported in several other studies in other locations and conducted with other methods. These results indicated that it was time for criminologists, policy makers and practitioners to focus on crime places and crime clustering (Braga & Weisburd, 2009)

Crime hot spots and crime clustering have now been brought to attention and is recognized by several researchers. With this knowledge, how is crime prevented? In the perspective of situational criminology it is “*the opportunity that makes the thief*”- meaning that when the environment encourage crime or offer the

opportunity of crime, crime will occur. When the opportunity to crime increases, crime rates will increase. On the other hand, crime will also be reduced if the opportunity to crime reduces, which is perhaps a more important argument when dealing with crime prevention (Clarke & Eck, 2005). Herman Goldstein (1979) was first to launch the concept of problem-oriented policing. He had the idea that police work should basically be founded on proactive interventions rather than reactive. Police forces have the opportunity to change the frustration of returning to the same places and same offenders without having any long lasting effects. Instead they could be more preventive and intervene earlier in the causal process with the result of being more effective (Clarke & Eck, 2005). From the problem-oriented approach more specific preventive methods have been suggested. Hot spot policing or place-based policing, have been suggested to have significant prevention gains through focused police interventions, such as proactive arrests and directed patrols (Braga, 2001).

However, although hot spot policing is proved to be effective (Johnson & Bowers, 2003; Braga, 2001 and Clarke & Weisburd, 1994) the strategy is often discussed together with both positive and negative effects. Most attention has been put to what is considered a negative effect, that is - the displacement of crime. Research has found though, that displacement in many cases is marginal. Instead hot spot policing have been argued to be more associated with diffusion of benefits. Studies of both diffusion and displacement will provide useful insights of the effectiveness of crime prevention efforts (Johnson & Bowers, 2003).

1.3.1. Defining hot spots

Hot spots are small geographical areas that cluster crime. But how do these hot spots emerge? There are three different types of hot spots and they all have different characteristics. First, there are places that **create crimes**. These places attract many people and not only those with criminal intentions. However, this means that opportunity for crime and the probability of offender and target to meet increases. Second, there are places that **attract crime**. Individuals with criminal intentions are attracted to this type of places since they offer many opportunities for crime. Third, places can also **contribute to crime**. Crime contributing places are places that do not control people's behavior. Either there are no rules or regulation at all or they are not maintained. In sum, there are three factors that influence the development of hot spots, increased number of offender, increased number of targets and less control (Clarke & Eck, 2005).

1.3.2. Defining diffusion of benefits

Displacement of crime is often defined as the negative consequence of situational crime prevention. The argument of displacement is used to criticize this perspective. What is often forgotten is the fact that situational crime prevention also may bring positive effects beyond the targeted areas (Barr & Pease, 1990).

This phenomenon is the direct opposite of displacement and is called diffusion of benefits. Through diffusion of benefits crime rates are affected positively. For example the reduction in crimes might take its forms through changes in time, target or places that are not protected by the intervention. The intervention might also have impact on types of crime that initially were not in focus (Clarke & Weisburd, 1994).

Crime prevention can thus result in two different effects. They are both concerning movement and changes in crime patterns. Clarke and Weisburd (1994) state that:

“Whereas displacement refers to the process that shift crime away from targets that are the focus of crime prevention efforts, diffusion is concerned with the process that spread the crime reduction benefits beyond this targets” (p. 169)

Focusing on diffusion of benefits enables the opportunity to maximize crime control benefits. If it is possible to identify the process behind diffusion it might also be possible to design crime prevention programs to reach the best possible outcome and effects (Clarke & Weisburd, 1994).

There are two different types of diffusion – deterrence and discouragement. **Deterrence:** Even though the offender does not risk being detected or arrested, he or she may still believe this risk is immediate. This could affect the decision-making that decide whether the crime will be committed or not. Take for example camera surveillance. The deterrent effect lies in the unawareness of how far the camera is ranged (ibid). Deterrence is often discussed in terms of general and specific deterrence. Specific deterrence refers to how the future actions of the offender will be affected. How well does the punishment affect the punished individual? General deterrence on the other hand, refers to the effects of the threat of punishment (Wikström, 2008). In this thesis, the main focus will be on general deterrence.

Discouragement: Beyond the risk of being detected an offender also weighs effort and reward when deciding to commit a criminal action. When the effort is not weighed up by the rewards the offender may consider not follow through with the criminal intention despite that there is no big risk of detection. However, these two types of diffusion are very much related and dependent on each other. One could be the result of the other. However, the deterrence has to do with detection whereas discouragement has to do with the effort that must be put to commit the crime (ibid)

2. PREVIOUS RESEARCH

The early crime prevention research was focused in treatment of the individual. The methods used were for example different types of counseling, surveillance and psychotherapy. All with the aim of preventing relapse in criminal behavior. These studies though have a lot of methodological issues and are therefore difficult to draw reliable conclusions from. Law enforcement and crime prevention in the form of increased police patrols were also in focus in the research at this period of time. Both the police force and the public considered foot patrol to have a big impact on decreasing crime rates. According to later follow-ups that was not entirely true. This led to a perspective that “nothing works”, but was this really the case? It was concluded that types of crime prevention seldom works on all crime types. Crime prevention therefore needs to be adjusted according to the current situation (Visher & Weisburd, 1998). Conclusions drawn from this early crime prevention research are as follows:

- *Crime prevention programs must be carefully focused and very specific in orientation.*
- *Researchers must be concerned not only with the theory behind a program, but also with its development and implementation.*
- *Research designs must be developed in ways that make it possible to show effects if they exist (Visher & Weisburd, 1998, p. 231)*

2.1. Displacement of crime and diffusion of benefits

Studies of displacement of crime and diffusion of benefits are limited in many ways. First of all, many studies are based on the same empirical data and secondly, the data is narrow. The methods of how to evaluate effects such as displacement and diffusion have evolved during recent years but the earlier studies that have been conducted are inadequate and have had difficulties creating consistent conclusions (Bowers & Guerette, 2009).

From a literature review Bowers and Guerette (2009) searched for evidence of effects of hot spot policing. They found indications that both displacement of crime and diffusion of benefits existed. However, when displacement was observed it was marginal (ibid). Displacement of crime is found to be a possible outcome of situational interventions for crime prevention. However, it is not an obvious consequence. Instead this type of interventions is more related to diffusion of benefits (Hesseling, 1994).

Hesseling (1994) also state that displacement is often discussed as a negative consequence or as critiques of situational crime prevention. To investigate the phenomenon of displacement Hesseling studied 55 articles with situational focus. Evaluations of prevention program effects were in main focus, but Hesseling also included ethnographic studies of offender motivation and rational thinking. The

55 studies were categorized after type of intervention to examine whether displacement could be found. The categories were *increasing effort*, *increasing risk*, *reducing rewards*, *combination of measures* and *offenders*. Practically this could mean to complicate the criminal opportunity by installing cameras, increasing control and patrols (Hesseling, 1994).

The conclusion was that displacement were found in some cases, though, of more interest for this thesis is that out of 22 studies (those who did not found displacement), six had evidence of diffusion of benefits. The interventions that showed evidence of diffusion were those focused on increasing the risk or on a combination of measures (Hesseling, 1994).

Braga (2005) studied five randomized controlled trials on focusing police efforts in crime hot spots. The study showed that focused police intervention is a good method on preventing crime and disorder at hot spots. Through this study Braga also concluded that displacement of crime does not necessarily have to be an outcome of focused interventions. Out of the five randomized trials studied by Braga (2005), only two measured crime displacement and diffusion of benefits. These both studies were conducted in Jersey City, New Jersey. In the first Jersey City experiment the preventive efforts were focused on problem-oriented policing and interventions comprised of mostly aggressive disorder enforcement tactics combined with some situational responses. The second experiment completed in Jersey City was conducted through well planned crackdowns followed by preventive patrols to maintain crime control gains. Evidence of both displacement and diffusion were limited, but if any there were modest evidence of diffusion on benefits in one of the studies. The crackdown-study was the one with most evidence of diffusion of benefits (Braga, 2005).

The effectiveness of forms of surveillance was examined by Welsh and Farrington (2004). They assessed close-circuit television (CCTV) and natural surveillance, such as improved street lighting through a systematic review of previous work. At the first assessment both types of surveillance seemed to be as effective but more detailed analyses showed that improved lighting was more effective in reducing crime in city centers. Both were more effective in property crimes than in violent crimes. The authors also examined whether the effectiveness differed between countries and concluded that both CCTV and natural surveillance were more effective in Britain than in America. When it comes to prevention effects the results were mixed. Out of the 13 street lighting studies, twelve showed evidence of displacement of crime, diffusion of benefits or both. The CCTV studies were seven in numbers, and four of these showed some displacement while three out of the seven showed some diffusion of benefits (Welsh & Farrington, 2004). The results were in other words mixed. However, they add to the growing body of evidence that prevention effects such as diffusion of benefits and displacement of crime neither are absolute or possible to detract.

2.2. The difficulty of measuring effects

That the effects of situational crime prevention are difficult to measure has been stated by several researchers. Until recently the methods of measuring effects have been lacking (Weisburd m.fl., 2006; Breen & Ratcliffe, 2011). *Weighted displacement quotient* (WDQ) was introduced by Johnson and Bowers (2003) and is a method developed to measure effects such as displacement of crime and diffusion of benefits. The method is based on three factors; target area, control area and buffer area. When Breen and Ratcliffe (2011) applied WDQ on different types of crime the result showed that the crime rate in the target area actually increased after a preventive effort. However, this was most likely a result of raised tendency to report crime, both by public and the police rather than actual increased crime. Overall the crime rates were reduced in both target area and buffer area. This could mean that there is evidence of diffusion of benefits. WDQ is said to be a very useable and applicable method of measuring diffusion and displacement. Though, the difficulty is to choose buffer area. How close and related should it be to the target area? To gain a valid result they must be evaluated in relation to each other. To be able to transfer the preventive intervention to the buffer area the both areas must be depending on each other. An accurate consideration on different environmental aspects together with influences from rational choice theory and routine activity theory need to be conducted to establish all relevant factors (Breen & Ratcliffe, 2011).

2.3. Offender research

To fully understand the phenomenon of diffusion of benefits and also displacement of crime it might be of importance to give some attention to the individual behind the crime, the offender. Whether a crime preventive intervention reaches the estimated goals, Hesseling (1994) proposes is very much depending on the criminal. Despite this fact, few studies take the micro-level approach to examine crime prevention effects. When crime prevention efforts are inducted they result in an offender who needs to adapt and is forced to change the crime routine in spatial, temporal or tactical pattern (or in the case of diffusion, entirely refrain from the criminal act) (Ready, 2009). It might be important to understand the circumstances behind the adapting offender to further understand the circumstances behind the prevention effects.

Every action is preceded by a motive and a decision based on rational considerations. This process might be affected by the preventive strategies and therefore also influences the offender to either continue to commit crimes or not. Some offenders try to find new opportunities to crime while others decide to resist because of the difficulties the interventions bring (Hesseling, 1994). Hesseling's (1994) study which is based on earlier reports with ethnographic emphasis concluded that an offender with a less severe criminal history had less probability to displace crimes. When offenders do displace crimes it tends to be in tactics,

target, time or space. Most likely offenders will adhere by the same type of offenses (ibid). When explaining displacement and the decision-making by offenders this might also explain what aspects that play part in diffusion of benefits.

3. THEORETICAL APPROACH

Two theories are in main focus when it comes to explaining the characteristics of place and crime clustering instead of focusing on the offender traits. These two theories are rational choice theory and routine activity theory. The theories explain how the offender choose their victims/targets, what obstacles that might make the offender refrain from the criminal action and how some offenders get past these obstacles (Eck & Weisburd, 1995).

Situational crime prevention is essentially a case of adapting the setting and the situation so that the offender will meet maximum effort, increased risk and reduced gain when the crime is committed. The three components above are the foundation of rational choice theory. With the help of routine activity theory the understanding of the offender and motivation behind the crime will be deepened. Despite the fact that it is especially place and setting that are of interest for situational crime prevention it is difficult to entirely leave the offender outside the discussion. It is also important to understand that where target and offender meet will be the place of the crime (ibid).

3.1. Rational Choice Theory

Rational choice theory was an outcome of an overall shift in how researchers viewed offenders in the 1970s (Cornish & Clarke, 2008). People are not “empty vassels” when they approach opportunity to crime (Felson, 2007). They bring background factors that influence motivation and decision-making in the offender (Cornish & Clarke, 2008). The key assumption in rational choice theory is that decisions made by offenders have a purpose. They are not random, but deliberate and based on to what extent they will benefit the offender. The rational choice perspective means that the best way to prevent crime is by situational crime prevention, that is, by reducing opportunity to crime. Crime is prevented not by changing offenders but by changing situations. By making crime more difficult to commit and by reducing the profit from it, the criminal action will become a less attractive choice (Felson, 2007).

3.2. Routine Activity Theory

Research on opportunities and criminal events are often grouped under the label of environmental criminology. Routine activity theory are together with for example rational choice theory, one of those theories under the concept. Routine activity theory was founded by Marcus Felson and Lawrence Cohen in 1979. Just like rational choice theory the key assumption in this current theory is that a reduction of opportunities for offending will lead to a reduction in crime. Instead of giving attention to the decision-making and rational consideration of the

offender, which is the focus of rational choice theory, routine activity theory focuses on *how* offenders come across opportunities to crime. The answer lies in the everyday life and routine activities (Felson, 2007).

Cohen and Felson (1979) argue that three elements necessary elements must converge in time and space to enable a criminal event. The three elements are; *motivated offender, suitable target and absence of a capable guardian*. Routine activities, that is, those activities that both offenders and non-offenders carry through in everyday life make the three elements above come together. Crime prevention is through this perspective best carried through by removing any of the three elements. If there is no motivated offender or no suitable target there will nor yet be a crime. Particularly it is the convergence in space and time of suitable target and absence of a capable guardian that have the prime impact on crime rates. Guardians are not always aware that they are guardians and can take the form as either ordinary people doing their daily routines, police interventions or target labeling (Cohen & Felson, 1979).

3.3. Applying rational choice theory and routine activity theory

Rational choice theory and routine activity theory are linked to each other through the understanding of how offenders pay attention to targets and also how this affects crime distribution over time and space. The answer to this understanding can be explained by in routine activities. Offenders, just as normal people, engage in routine activities. They travel between school, home, work or other activities and therefore come across opportunities to crime. Those places which are visited by several offenders and also provide opportunity to crime are at risk to become possible hot spots or places where crimes cluster. Some offenders choose crime sites with care and consider their options. Some offenders, on the other hand (and this is probably most common), commit crimes at places that are known to them through noncriminal activities (Eck & Weisburd, 1995; Braga, Papachristos & Hureau, 2012).

The two theoretical perspectives together emphasize the importance of place and setting and also the behavior of the offender. The approach offered by the theories is that situational crime prevention efforts should be designed to hinder offenders and desirable targets from converging in time and space. In that way many crimes could be prevented (Eck & Weisburd, 1995). A street corner with bad lightening, many small places to stash and also has the absence of a guardian could for example be an excellent hos spot for drug selling. To arrest the offenders at this places seldom gives any effect (Braga et.al., 2012).

By understanding how places and settings influence criminal opportunities there is also a possibility to understand the effects of situational crime efforts at hot spots. Both rational choice and routine activity theory point out that some attributes make places attractive for an offender (Eck & Weisburd, 1995). If this statement

is true, and if place and setting is of that big importance, it should mean that the surroundings should be exactly identical in two different places for displacement or diffusion to occur. This is also stated by Hessleing (1994), who suggest that behind every offender there is a rational decision. For example, displacement only occurs when there is a target familiar to the offender or when the setting offers the same “choice-structuring-characteristics” as the setting where the offender was deterred (ibid). Since displacement is the opposite of diffusion, it would be possible to say that diffusion occurs when the intervention make sure that this factors are not offered to the offender even in nearby areas.

Rational choice and routine activity are going to be used to describe and as a tool trying to analyze why diffusion of benefits occurs or does not occur in the examined studies. Is the preventive effort designed with elements of the two theories? Has the effort led to diffusion of benefits? In sum, how can diffusion of benefits be explained and understood with the help of routine activity theory and rational choice theory?

4. METHOD AND DATA

To be able to answer the aim and research question of this thesis I choose to approach the subject with a systematic literature review. A systematic review is often made with the purpose of evaluate and interpret all relevant evidence for the particular question and aim. A systematic review differs from a traditional review, since the material and data in the latter case is not systematically identified. The advantages with systematic reviews are two-fold. First of all, a combination of data from different sources will make it possible for the work to result in liable and consistent conclusions. Second, when similar effects are identified among different settings and design this gives proof that the result can be transferred to other settings and indicates generalizability (NHMRC, 2000).

4.1. Implementation

Since my aim is to investigate the circumstances behind the phenomenon of diffusion of benefits, I have chosen to search for literature that evaluates or report a hot spot policing intervention. Furthermore, I have used the data by identifying the characteristics of the intervention and the setting which the effort is interposed. Subsequently I will identify the effects of the intervention and conclusion can be drawn from how and when diffusion of benefits occurs.

When searching relevant literature I followed the following steps recommended by Landén at the Faculty of Medicine in Lund (2011):

1. Formulate a research question
2. Specify criteria for inclusion/exclusion
3. Establish a plan for the search
4. Formulate keywords for the search
5. Follow through with the search
6. Interpret and evaluate

4.2. Selection

The issue of research and therefore also the research question have been formulated in an early stage in this thesis. Therefore the next step in the search was to specify criteria for inclusion and exclusion. Since the field of research regarding hot spot policing is very wide I had to be very specific in my criteria and later also my keywords. After a careful consideration the criteria for inclusion resulted in the following:

- *The literature evaluate or report a hot spot policing intervention/experiment*
- *The literature is independent, should not be a meta-analysis*
- *Must mention the effect of the intervention and preferably mention diffusion of benefits*
- *Must be electronically available (due to time constrains)*

From these criteria I began the search for keywords. Finally the words used were: “hot spot policing”, “diffusion of benefits”, *experiment**, *evaluate**, *trial*, “place-based policing” and *crime prevention*.

As mentioned before, hot spot policing is a wide area of research. Therefore I wanted to include as many relevant databases as possible to reach all relevant data. I began my search in the database *ProQuest* which enables searching in several other databases as well. For this thesis I identified six relevant databases. In the end the result came from three of them; *ProQuest Dissertation and Thesis*, *National Criminal Justice Reference Service Abstracts Database* and *ABI/Inform Global*. The search in these databases resulted in six articles that matched my criteria for inclusion. However, I felt that this amount was perhaps not comprehensive enough and that I might find more relevant data if I was not limited to the above mentioned databases. Therefore I chose to complement my data by making a more extensive search through the database provided by the library of Malmö Högskola. *Summon*, is like ProQuest, a database with a collection of several databases. Since this search got me a high number of hits, I had to narrow the search more than the previous search. Though the combination of words was the same as in the ProQuest search. When I no longer found new relevant data I ended up ten articles that became the material for this thesis.

4.2.1. *Characteristics of selected studies*

The selected studies are all reports of some kind of place-based interventions or hot spot policing. Mainly they are conducted in cities in America, with the exception of three that are conducted in England, South Korea and Australia. They are all completed between year 2004 and year 2011. The interventions studied are very mixed and there is everything from overall targeted policing to surveillance in different forms and foot patrol. This fact also applies to the research design which varies among the studies. One important characteristic is that they all have measured diffusion of benefits and displacement of crime in some form, even if this was not the main purpose of the study. Nine out of ten studies are research articles and the tenth being a master thesis by Daniel Swanson (2010).

4.2.2. *Performance review*

When searching for literature I chose not to make “peer-reviewed” one of my criteria for inclusion. This was a deliberate choice with the aim of being able to include thesis and dissertations to my material. Therefore there is a need to be

extra observant of the quality of the used studies. The nine articles that are conducted in research purposes are written by researchers that are well known and cited within the area of hot spot policing and crime prevention. Consequently, I am confident that these sources are reliable. The thesis conducted by Swanson though needed an extra assessment. The thesis has been reviewed by an examination committee consisting of five members, which should mean that the contexts have been examined. Moreover, Swanson himself has based his thesis on renowned sources. I therefore choose to define Swanson also as a reliable source.

4.3. Qualitative approach

This thesis goes beyond only reviewing earlier work (which is perhaps more common when it comes to systematic reviews) since I draw own conclusions from the information given by previous researchers. Therefore I have chosen to use a qualitative approach to analyze and utilize the data. With the qualitative approach the researcher can reach the entirety and the context of the text and identify the most relevant parts for the particular study. The qualitative approach is preferable to a quantitative approach since the former allows a deeper analysis and therefore requires a careful assessment of the text (Esaiasson, Gilljam, Oscarsson & Wägnerud, 2007). In this thesis the focus lies in commonalties and circumstances of hot spot policing efforts. The goal is to outline correlations in when diffusion of benefits occurs and what type of preventive effort that is made in the area. For this purpose the qualitative approach is most appropriate.

4.4. Limitations

The literature search conducted in this thesis might comprise some limitations. Hopefully they are though marginal, but have most likely affected the result of this study. 10 articles may seem as a quite small selection. However, the research field of hot spots and hot spot policing is large. By only using keywords including hot spots the search resulted in a very large number of hits. Therefore the search had to be narrowed. The criteria of inclusion that stipulate the need for the articles to report on diffusion of benefits made the number of hits manageable. Many articles put to attention the existence of diffusion and displacement but did not further evaluate the extent of the occurrence. This is the reason why the final selection turned out relatively small. It is possible that a different use and combinations of keywords would result in different outcome for this study. However, I am confident that the search reached all relevant information that was available through the keywords.

There is also a possibility of limitations within the used material. Since it covers studies from USA, South Korea and England there are most likely several cultural differences that have affected the results in these studies. This also means that they affect the results of this thesis. Thus, this thesis was not delimited in geography. These considerations could though be interesting to investigate more

closely for researchers in the future and will be discussed further in the section of suggestions for future research.

4.5. Ethical considerations

The implementation of this thesis has strictly been focused on examining the occurrence of a situational phenomenon and does not concern any information that can be harmful either to the public or an individual. Since the thesis does not deal with this type of sensitive information, such as for example personal data, no major ethical considerations had to be done.

5. RESULTS AND ANALYSIS

In this section the results from the systematic review and the qualitative analysis will be presented. In the end this will lead to an answer of the research questions and the overall aim of this thesis. When presenting the results the theoretical approach will be kept in mind. Both rational choice theory and routine activity theory suggest that the environment affect people's activities and decision-making. How well do the interventions presented in the studies succeed in trying to change a criminal behavior and what are the effects? Do some interventions lead to specific effects more than others, and importantly, do some of them gain positive effects, that is- diffusion of benefits?

5.1. Brief overview of the literature

A brief overview of the articles used in this study is presented below. The presentation will focus on type of intervention and type of setting since this is of most interest for the overall aim of this thesis. The results will also be presented in Table 1.

Megan Cahill (2011) conducted a study to consider the changes made by a HOPE VI intervention in the perspective of geography, examining spatial movement of crime in and around five public housings in Milwaukee, Wisconsin and Washington D.C. The HOPE VI is a federal effort to improve and rebuild decayed public housings. This was done primarily by demolishing and replacing the worst housings but also by mixing the residential with both renters and owners.

Braga and Bond (2008) investigated the effects of hot spot policing through a randomized controlled trial in Lowell, Massachusetts. After identifying 34 hot spots they were divided into 17 pairs and one member of each pair were assigned the treatment conditions. The other member of the pair became the control group. The treatment received was problem-oriented policing following the steps by SARA (scanning, analysis, response, assessment).

CCTV (closed circuit television) is a situational crime prevention method. Farrington et al. (2007) report on 14 CCTV-projects in England. The targets were town and city centers, a city hospital and car parks. The analysis was made through measurers in target, buffer and control areas and the data consisted of victimization and police data.

Another CCTV-study was conducted by Park et al. (2012). The location was Gwang Myeong City in South Korea. The aim of this study was to measure displacement of crime and diffusion of benefits to assess CCTV as a method of preventing crime. The measures were made by the WDQ.

Few studies on hot spot policing report on LPR (license plate reader), however, this is done by Lum et al. (2011) with the aim of examining the preventive gains that can be won out of this method. LPR is a technology to identify number plates and was originally used to detect stolen cars. 30 hot spots in two jurisdictions were divided into 15 pairs who were assigned the experimental condition. The treatment involved strategically placed officers at locations where the probability of a stolen vehicle to pass is high.

Ratcliffe and Makkai (2004) searched for evidence of diffusion of benefits through outlining the effects of a targeted policing intervention in Australian Capital Territory. The intervention was targeted mainly on vehicle and burglary offences and was led by intelligence policing which consists of both patrols and specialist investigations.

Table 1. *Overview of the occurrence of diffusion of benefits.*

Study	Setting/Location	Type of intervention	Occurrence of diffusion	Occurrence of displacement
Cahill, M. (2011)	Five public housings, Milwaukee, Winsconsin and Washinton D.C.	HOPE IV	Milwaukee – yes, property crimes Washinton - yes	Yes
Braga, A. & Bond, B. (2008)	Lowell, Massachusetts, 34 hot spots (17 pairs)	POP and SARA (together with situational efforts)	Nonsignificant	No
Farrington, D. et al. (2007)	England (residential areas, town and city centers, hospital, car parks)	CCTV (Close Circuit Television)	No	No
Park, H. et al. (2012)	Gwang Myeong City, South, South Korea	CCTV	Yes	No (or minimal)
Lum, C. et al. (2011)	Alexandria City and Fairfax County, Virginia 30 hot spots	LPR (License Plate Reader)	No	No
Ratcliffe, J. & Makkai, T. (2004)	Australian Capital Territory (reduce property crimes)	Targeted policing	Yes (delayed)	No
Swanson, D. (2010)	West Las Vegas, high density neighborhood	“Safe Village”, proactive and reactive policing	Yes	No
Taylor, B. et al. (2011)	Jacksonville, Florida, 83 hot spots	POP and directed-saturation patrol	No	Yes
Weisburd, D. et al. (2006)	Jersey City, New Jersey (drug and prostitution site)	Targeted policing (patrol, reduce criminal opportunities)	Yes	No
Ratcliffe, J et al. (2011)	Philadelphia	Foot patrol	No	Yes

Daniel Swanson (2010) had the aim of investigating the occurrence of diffusion of benefits and displacement of crime. Swanson uses a secondary analysis of the Las Vegas “Safe Village” initiative. The initiative was focused in west Las Vegas neighborhood known for high number of crimes. Four key components were the foundation of the initiative, response, outreach, trauma and sustainment and have elements of both reactive and proactive approaches.

Although hot spot policing has gained more acceptance within the field of crime research there is a little amount of research conducted regarding the effectiveness of different hot spot strategies. Jacksonville, Florida became the subject of such an analysis conducted by Taylor et al. (2011). 83 hot spots were identified and then assigned either a problem oriented policing strategy, directed patrols or a control condition for 90 days. Measures of crime were being done during and after the intervention period.

Weisburd et al. (2006) conducted a study to try to overcome the methodological issues that are often raised when examining displacement of crime and diffusion of benefits. The study was made in Jersey City, New Jersey. One drug site and one prostitution site became target of the intervention, consisting of a combination of components. For example the intervention included increased number of officers for patrols, and the removing of target, offender and opportunity. Community groups were also included in the intervention.

The last article used in this thesis is written by Ratcliffe et al. (2011) and discusses crime prevention in means of foot patrol. They report on an effort made in Philadelphia, Pennsylvania where more than 200 officers patrolled the streets. 60 hot spots were identified and was the basis of the randomized controlled trial.

5.2. What do we know from the literature?

The literature review showed that the occurrence of diffusion is very complex. At first sight, no clear evidence of correlations of when, how and where diffusion of benefits occur are revealed. The interventions that are evaluated or used in the different articles are very varied. There are predominantly interventions based on targeted policing and problem-oriented policing of different forms. The targeted policing interventions were not always specified however this type of policing means that the police force gives more intention to either a specific setting or a specific offence (Braga, 2001).

There are also interventions more focused on situational factors, such as the HOPE IV program which is designed to restore or rebuild public housings. Two studies are based on data from CCTV (close-circuit television), which is intended to bring surveillance into the setting. The articles also reported on efforts created by combinations of interventions.

Only four out of the ten studies have the primary goal of investigating displacement of crime and diffusion of benefits (Cahill, 2011; Swanson, 2010; Weisburd et al., 2006 and Park et al. 2012). Predominantly the studies had the aim of investigating crime prevention gains from different types of interventions or crime prevention efforts. However, effects such as diffusion and displacement are hard to overlook and researchers have therefore made more or less thorough measurements of the phenomena.

5.2.1. The occurrence of diffusion of benefits

According to Bowers and Guerette (2009) diffusion of benefits together with displacement of crime are possible outcomes of hot spot policing. However, the field of research has showed that they are not absolute and several earlier studies have had mixed results (ex. Welsh & Farrington, 2004; Hesselning, 1994).

In this thesis five out of ten studies showed evidence of diffusion of benefits. The first one was conducted by Cahill (2011) and reported of the HOPE IV intervention with mostly situational elements. Three of the studies report on targeted policing (Ratcliffe & Makkai, 2004; Weisburd 2006; Swanson, 2010) with a combination of different interventions. The Swanson-study is more focused on individual factors rather than situational. The last study showing evidence for diffusion of benefits is the CCTV-study conducted by Park et al. (2012). Three studies showed displacement of crime or both displacement and diffusion. This means that out of seven studies (those who had no effect or no displacement of crime) five had diffusion. There is thus a majority of studies that have diffusion of benefits as a likely outcome, which is add to the evidence that suggests that hot spot policing is likely to be associated with diffusion of benefits rather than displacement of crime (Bowers and Johnson, 2003).

An interesting factor is that the four of the five studies that show diffusion of benefits actually had the aim of searching for evidence of this particular effect together with displacement of crime. The exception out of the five is Ratcliffe and Makkai (2004) who had the main goal of investigating the sustained effects of a targeted policing operation. However, alongside this investigation they had a secondary goal and analyzed surrounding areas for diffusion of benefits and displacement of crime. This raises an important question, is it possible that the aim of the research can affect what results it brings? Is it only when displacement and diffusion are explicitly examined that the likelihood of finding evidence for the effects increases?

5.2.3. Is there a connection to the preventive effect?

Many of the articles reviewed in this study had a preventive effect from the intervention. Only one had no preventive effect (Lum et al., 2011) and two had mixed results (Farrington et al., 2007; Taylor et al., 2011). The studies that reported on occurrence of diffusion of benefits all had preventive effects and

crime rates were reduced in the target area after and during the intervention. They were not only ones though. Also studies with more signs of displacement of crime had preventive effects. Those studies that had no preventive effect however had no evidence of either diffusion of benefits or displacement of crime.

Therefore it can be concluded that a necessity to measure effects, such as diffusion of benefits, is that the intervention is followed by a preventive result. This is on the other hand quite logic, since the definition of diffusion of benefits is a diffusion of the preventive effect to nearby areas. If there were no preventive effect in the target area, there would be nothing to diffuse. This same circumstance also applies for displacement of crime and is put to attention by Barr & Pease (1990) who state that:

”Displacement, then, is discussed as a limit on the efficacy of crime prevention. In the gloom of that attends such discussion, it is too readily forgotten that for a crime to be displaced it must first be unplaced; in other words, that a crime at a particular place and time must have been prevented” (Barr & Pease, 1990, s. 280).

This fact stresses the importance of increasing the knowledge of what effects preventive efforts can bring. Diffusion of benefits is definitely a positive effect, but the statement by Barr and Pease (1990) suggest that the discussion of displacement as an all through negative effect is not entirely true.

5.2.2. *Types of interventions*

The settings where the intervention was inducted and where diffusion occurred are also very varied. To be able to examine commonalties in types of intervention the studies were categorized accordingly to Hesseling (1994) and the basic foundations of rational choice theory, which is presented in Table 2 below. The categories followed by most studies are *increasing the risk and combination of interventions*. However, Hesseling (1994) also found that when diffusion where detected it was also under these categories. The studies examined for this thesis though spread the occurrence of diffusion over the five categories. Two are found under *combination of interventions*, one is found under *increasing risk*, one is found under *offender-focus* and finally, one is found under *increasing effort* (written in bold).

Increasing the effort. Cahill (2010) wrote about the HOPE VI initiative, which had the aim of restoring public housing to reduce crime. I chose to put the Cahill-study under the category of increasing the effort since a restored neighborhood will probably (and hopefully) reduce motivation of continuing to disturb the area with violent crimes and deviant behavior. Furthermore, by mixing renters and owners the people living in the area will not be a homogenous group which might

reduce the suitable targets. With a mix of people routine activities will differ, capable guardians will increase and the convergence of target and offender in time and space will be more rare. Increasing the effort should mean that the effort of committing the crime is now higher than the expected gain.

Table 2. *Type of intervention.*

<i>Increasing the effort</i>	<i>Increasing risk</i>	<i>Reducing rewards</i>	<i>Combination of interventions</i>	<i>Offender-focus</i>
Cahill, 2011	Ratcliffe & et al., 2011		Weisburd et al., 2006	Swanson, 2010
	Lum et al., 2011		Taylor et al., 2011	
	Park et al., 2012		Ratcliffe & Makkai, 2004	
	Farrington et al., 2007		Braga & Bond, 2008	

Increasing the risk. CCTV is a renowned method when it comes to increasing the surveillance around a hot spot. The study conducted by Park et al. (2012) had the primary goal of verifying the displacement and diffusion of benefits from this type of preventive method. Surveillance does increase the opportunity of the offender considering his or hers options which, according to the perspective of rational choice, should mean that the offender weighs advantages and disadvantages with committing the crime. Hopefully the consideration make the offender refrain from the crime. Since diffusion of benefits were found in the Park-study the CCTV-method, first of all, have been successful in preventing crime, and secondly have spread this positive effect. A possible reason could be that the range of the surveillance is unknown to the offender and that he or she for that reason choses to resist from crime to avoid detection. However, this thesis includes two articles that report on CCTV interventions and only one of them (Park et al., 2012) shows evidence of diffusion of benefits. Previous research has also shown that the occurrence of diffusion is complex (Welsh & Farrington, 2004). Welsh and Farrington (2004) also concluded that the effectiveness of CCTV also varies and most likely reaches best results when combined with other methods. If other factors are important in regards to the effectiveness of the intervention it is probably also important in determining if diffusion occurs or not.

Combination of interventions. Under the category of combined measures two articles reported on diffusion of benefits. Weisburd et al. (2006) reported on a threefold interventions based on preventing prostitution and drug trading. The intervention intended to remove target, offender and the opportunity together with community groups with the aim of potentially make an impact on the offender. In this combination of measurs there are many similarities with the routine activity theory and rational choice. The routine activity theory suggests that the three

elements suitable target, motivated offender and an absence of a capable guardian are the key elements that make a criminal opportunity. The intervention in Weisburd et al. (2006) is designed with elements from routine activity theory. Cohen and Felson (1979) suggest that it is particularly the convergence in time and space of the suitable target and absence of a capable guardian that have the most impact on crime rates. Therefore these two factors should be targeted to gain the most preventive effect.

In Jersey City, where Weisburd et al. (2006) conducted their study, the intervention was comprised by both foot patrols and removing prostitutes and also the most violent and chronic drug users from the different sites. This is accordingly to Cohen and Felson's (1979) suggestion that crime prevention can be gained when target and offender are hindered to meet. It was earlier discussed that when gaining the most preventing effect it might be possible that this brings the most likelihood of diffusion of benefits. Furthermore, the Jersey City-study complemented the interventions with more individual factors such as community groups designed to help prostitutes with their various problems in life. By helping prostitutes (in this perspective both seen as offenders and targets) on an individual level it is hopefully possible to influence their decision-making and help them refrain from the criminal activities. Since the Weisburd-study showed evidence of diffusion of benefits the researchers through their interventions have created some type of deterrence or discouragement (Clarke & Weisburd, 1994) that has spread to nearby areas.

Ratcliffe and Makkai (2004) also reported on a combination of measures in their study of an Australian policing initiative. This initiative included surveillance, patrolling and targeting offender relapse. Moreover, there was a focus on raid investigations led by an intelligence group. Likewise Weisburd et al. (2006) there are elements of rational choice and routine activity in the intervention. Surveillance increases the risk, and reduces the suitability of the target and also affects the decision-making of the offender. Patrolling removes opportunity and gives the setting a capable guardian and targeting relapse offenders removes the motivated offender. Since the routine activities of both offender and target are difficult to change and affect, interventions instead must be designed so that the opportunity to crime is no longer apparent to the offender. Diffusion of benefits occurs when the intervention succeeds to change how the offenders perceive the environment and setting even in nearby areas.

Offender focus. Diffusion of benefits was also found in the study by Swanson (2010) who made a reexamination of the Las Vegas Safe Village initiative. This initiative was mostly based on personal factors and had the aim of intervening at critical times and also preventing it from happening in the future. The most likely reason to why this type of intervention gains positive effects is that the proactive and reactive efforts impact offenders to rethink their criminal activities and changes their rational thinking. Hesseling (1994) suggests that every preventive effort is followed by an offender who needs to adapt to the changed circumstances

(Ready, 2009). When the setting no longer offers the same decision-making process the offender must consider the new options offered. In situational criminology it is mostly the environment and the setting that are in focus. However, the offender is part of the setting and is also the one who is affected by the changes inducted by the prevention effort. Therefore, one can not entirely leave the offender outside the discussion regarding the circumstances behind crime prevention effects.

Summary. In this section the studies that showed evidence of diffusion of benefits have been categorized after types of intervention, accordingly to Hesseling (1994) and the rational choice perspective. None of the studies reported on interventions that fitted into the category of *reducing rewards*. The purpose of making this division was to distinguish commonalties between the studies that showed evidence of diffusion of benefits and also analyze why diffusion of benefits occurred in this particular situation. However, few commonalties were found. What can be said is that all studies had elements of rational choice theory and routine activity theory in the preventive efforts. There are though no signs that this only applies to the studies that showed diffusion. Also the studies who reported on displacement of crime or no effect at all had elements of the two theoretical perspectives.

5.2.3. *Type of crime*

Likewise the fact that there are no obvious connection between diffusion of benefits and type of intervention there are neither any obvious correlation between diffusion and type of crime. Few of the studies specified what type of crimes the intervention was focused on. Overall it was mentioned as violent crimes, property crimes and disorder and the interventions led to both diffusion of benefits, displacement of crime or no effect at all.

6. DISCUSSION

In this section I will to discuss the main results of this thesis and also present some aspects that are of importance in order to allow the reader to put this thesis in a context. The discussion will end with a suggestion for further research.

The overall aim of this thesis was to investigate the circumstances behind diffusion of benefits. This was preceded by a hypothesis that diffusion of benefits occurs when the intervention, setting, offender or offence offers some attributes that make the effect more likely or unlikely to occur. However, this thesis has found no evidence for this hypothesis. It seems instead that the occurrence of diffusion of benefits is random.

The phenomenon is very complex since no clear correlations were revealed. Previous research has stated that diffusion of benefits is a very likely outcome of targeted policing interventions. It is however not an absolute outcome. This thesis adds to that evidence. Many of the studies included in this thesis reported on diffusion of benefits. There were also studies that showed displacement of crime. Some studies showed no effect at all or to some degree both effects. It seems like the outlining of diffusion of benefits is not an entirely easy task. The question therefore remains; when does diffusion of benefits occur and when does it not?

What can be stated is that the occurrence of the phenomenon will always be preceded by an intervention with preventive gains. If the intervention is followed by a preventive effect it should according to the theoretical approach (rational choice and routine activity theory) mean that it has hindered the offender from converging in time and space with the desirable target and affected the rational thinking of the offender. It is when this happens that effects such as diffusion of benefits and displacement of crime can occur.

Throughout this thesis the question of research aim and research method were raised. The studies that reported on diffusion of benefits all had the main purpose of investigating this particular effect and that leads to a consideration of how much method and aim plays part in what results that show? Perhaps is diffusion of benefits easier to detect when there is actually an intention to search for it. Perhaps the lacking convergence of diffusion of benefits is due to researchers having had the search of intervention effects as a secondary goal and only report on this phenomenon briefly. This further emphasizes the importance of trying to put more focus on the effects that can occur from preventive efforts. Despite, and perhaps because of, the difficulties of measuring effects the need to continuing to investigate the circumstances behind for example diffusion of benefits is still big.

6.1. The results in context

This thesis takes its point of departure in perspective that the more we can learn about diffusion of benefits and displacement of crime the more we can learn about crime prevention and consequently create more effective efforts and make the effects become as positive as possible.

This thesis most prominent result is that the occurrence of diffusion of benefits is random. However, this result is based on a relatively small selection of studies. It is possible that a different or a bigger selection would give another result. Therefore I wish that this thesis should be seen as a case study and as a foundation for further research and examinations within the area. Together with other research this thesis though point out the importance of further investigating the circumstances behind crime prevention effects. Previous research has showed that diffusion of benefits is a possible outcome, but none of the earlier work have concluded when, how and to what extent.

But what if the results of this thesis, namely that there are no factors that decide when diffusion occurs and that the occurrence is random, is actually cohesive with the reality? What does this say about crime prevention and its effects? If there is no way to decide whether some special attributes precede diffusion of benefits but there is still a desire to reach this effect to gain best possible outcome of an intervention, it seems like the best way is to make sure that the crime preventions effort is implemented with a preventive result. Without a preventive result there is no possibility for either diffusion of benefits or displacement of crime to occur.

6.2. Methodological limitations

Many researchers (Bowers & Guerette, 2009; Weisburd et al., 2006; Breen & Ratcliffe, 2011) have pointed out that systematic reviews may not be the optimal way to investigate hot spot policing effects. For example WDQ seem to be a more satisfactory method to reach valid results regarding diffusion of benefits (Breen & Ratcliffe, 2011). With this knowledge in mind, why did I still choose to use this as a method for this thesis? First, because of time constrains I was not able to collect data in the field of hot spot policing. A systematic review was a more manageable method for the given time span. Secondly, Weisburd et al. (2006) together with the above mentioned researchers state that a systemic review may be limited when it comes to measuring to what extent diffusion of benefits occur. The aim of this thesis is to investigate the circumstances behind diffusion of benefits, and I therefore consider it to be adequate to evaluate previous studies on hot spot interventions and what they have led to. Going out on the field to investigate this particular issue of research would be very time consuming since it would first need numerous hot spot policing efforts that should result in effects such as diffusion of benefits.

6.3. Suggestions for further research

Since neither this thesis nor previous research have been successful in determining when diffusion of benefits occurs there is still a need to conduct further examinations in this field of research. This thesis searched for evidence of diffusion of benefits within different types of interventions. Since there seems to be many factors playing part in the occurrence of diffusion of benefits, I suggest that further research focus on one type of interventions and consequently try to find commonalties beside the interventions. Important factors may perhaps be found when comparing stressors. By narrowing down on a specific crime and specific country it would be possible to draw conclusion based on geography and cultural differences. There is also a further need to conduct field studies meaning that measurements should be conducted in the settings where diffusion of benefits is likely to occur. Many studies who have tried to make conclusions regarding crime prevention effects have been systematic reviews and it has been stated by several researchers that they mainly rely on the same data. Previous studies and the conclusions from them have been analyzed and used over and over again. More studies, and especially studies that have the main purpose of searching for evidence of diffusion of benefits and displacement of crime, need to be conducted. It seems like the weighted displacement quotient is a valid method to outline crime prevention effects since it emphasize the relation and differences between target, buffer and control area. These places are most important when measuring the occurrence of diffusion of benefits and displacement of crime. With the help of WDQ it would therefore be possible to create new data and consequently new conclusions.

7. CONCLUSION

This thesis had the overall purpose of investigating the circumstances behind diffusion of benefits, a hot spot policing effect. A greater knowledge of what type of effects that can be reached through crime prevention efforts can lead to more positive outcomes and achieve the most preventive gains. The phenomenon of diffusion of benefits is complex. It is a possible outcome, but it is equally not possible. The conclusions drawn from this thesis will be compiled below with focus on the research questions that led the thesis.

- *When diffusion of benefits occurs, are there commonalties in the preventive efforts?*

There has not been shown any commonalties within the preventive efforts that reported on an occurrence of diffusion of benefits. The most prominent conclusion, which is actually a quite logic conclusion, is that diffusion only occurs when the intervention has been successful in the preventive intentions. Without a reduction in crime in the target area, there will not either be an effect to diffuse. The studies that showed evidence of diffusion of benefits and also had a preventive outcome all had elements of rational choice theory and routine activity theory.

- *Under what circumstances is diffusion of benefits likely to occur?*

It has not been possible to outline when, how and where diffusion of benefits occur through this thesis. Nevertheless, it can be stated that it is a likely outcome of preventive efforts. Perhaps it is more likely than the phenomenon of displacement of crime, which is more often discussed within the research field. This thesis has concluded that the phenomenon of diffusion of benefits is very complex and occurs randomly. In conclusion, more research on the subject is needed to fully understand diffusion of benefits and the circumstances lying behind it and this study made a contribution to that need. Although diffusion of benefits is mostly discussed within the situational perspective of crime, this thesis has also stressed the importance of not forgetting the offender behind the crime. The offender is nonetheless the one who has to adapt to changes in settings preceded by preventive efforts.

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