Social Experimental Intervention through Criminal Psychology:
Measures to Combat Snatching Incidents in Amagasaki City

犯罪心理学による社会実験的介入
尼崎市におけるひったくり対策

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Introduction

This paper reports the progress and results of crime prevention measures undertaken using analyses and techniques from criminal psychology to deter "snatch," which had been rising in Amagasaki city, Hyogo prefecture. Instead of conventional approaches to regional crime prevention using environmental criminology (Schneider, & Kitchen, 2002), various attempts were conducted incorporating insights from criminal psychology regarding matters such as alerting potential victims and concretely predicting and taking countermeasures against criminal behavior based on criminal information analysis.

Criminal psychology is defined as the academic discipline involving analysis and examination of four factors: the physical and temporal elements, such as the crime scene; and the psychological processes and behaviors of offenders, victims, and witnesses or observers (Rossmo, 2000; Felson, 2002). When conducting a study on crime prevention based on criminal psychology, progress is made using the results of offender profiling (Kiriu, 2018), which involves compiling data on each of the four abovementioned factors and performing statistical analyses. For example, the characteristics of child kidnapping, indecency, and assault/injury incidents revealed in the offender profiling studies of Tamura (1992) and Okamoto and Kiriu (2006) enable specific crime prevention activities to protect children.

As one example, we can gain a clearer picture as to whom crime prevention volunteers should pay attention to by specifying the offenders' means of transportation. Notably, we can use the three following trends. First, offenders who use automobiles are "20 years old or older, rarely people with mental disabilities, often have wives and children, and are employed and economically

middle-class," whereas half of those who use bicycles after middle age are likely to be "persons with mental disabilities." Second, of offenders who use bicycles, "around half are young men." Third, with regard to offenders who commit crimes on foot, "while they account for half of the group, many of those middle-aged and older have alcohol problems" (Tamura, 1992). Similarly, in the case of violent offenses involving injury to children, injury to toddlers and young children is more common than injury to elementary school students, and offenders are more likely to be women who know the victim. Additionally, in the case of violent offenses committed by people who do not know the victim, the means of travel are most commonly walking or bicycling, and they are often people who live in the vicinity of the crime scene (Okamoto & Kiriu, 2006).

Based on the above, offender profiling can present more focused and effective crime prevention activities compared to unguided attempts at deterring offenders.

Methods

Details of Request and Implementation Period

In August 2013, the author was provided a consultation with the Community Safety Section of the Disaster Prevention and Safety Division of the Amagasaki City General Affairs Bureau. The consultation focused on measures for reducing the number of reported snatch incidents compared to those in the previous year of 2012, at which time incidents in Amagasaki city accounted for approximately one-third of the incidents in Hyogo prefecture. Amagasaki city was adjacent to Osaka prefecture, which experienced a high incidence of snatchings.

As a crime prevention advisor, I decided to implement snatch countermeasures based on criminal information analysis of crime prevention activities in Amagasaki city. Social experimental interventions were implemented from October 2013 to December 2015. In addition, the same activity continued from 2016 to 2018.

Procedure

This trial of this social experimental intervention by criminal psychology was conducted together with city officials. Our crime prevention plan was exploratory, but we proceeded to examine the results of the previous year. The plan was based on the results of our analysis of crime occurrence data, and the themes of the plan were "Presenting a Message to Snatchers," "Targeted Patrols," and "Enhanced Surveillance."

The following procedure was followed.

In 2013, I implemented two projects. The first is a campaign to prevent snatch offenses for citizens, involving a kick-off event and a character introduction. The second is understanding the

actual circumstances of snatch offenses, which was done through field work with city government staff and the creation of an incident database beginning in January. The kick-off event was held at 16:00 on September 2, 2013 at Hanshin-Amagasaki Station North Central Park, with the participation of the mayor and the chiefs of the three police stations of Amagasaki city, representatives of the four crime prevention associations, and representatives of local companies. At the time, we unveiled "Amaika-taro" (Figure 1), a character designed to prevent snatch crimes. Since October, "Amaika-taro" has been posted in the vicinity of sites where snatch incidents had occurred within the past year, as well as in neighboring supermarkets and stations.

Figure1. An Amaika-taro (Animation of Amagasaki's squid)
This was a character designed to prevent snatchings. This poster showed the time at which the snatch occurred.

In and after 2014, I conducted snatch criminal information analysis, pertaining to analysis using digital maps, patrols based on analysis results, and public relations activities through publicizing the issue through speeches and mass media.

The input variables for the digital map were incident information (e.g., date and place of occurrence, offense status), offender information (e.g., attributes from witness descriptions), and victim information (e.g., description) provided by the three police stations. As a result of this mapping, we increased patrols by blue police cars with reference to the time of incident occurrences, focusing on areas with frequent incidents and similar areas where no incidents had yet occurred. The analysis and patrols were widely publicized through coverage in newspapers and on TV.

From 2015 onwards, I planned and implemented a real-time surveillance system through the installation of surveillance cameras based on analysis results. The surveillance cameras were not the conventional fixed-installation type but were a mobile model (Figure 2). In areas with repeat

snatch incidents but few surveillance cameras, factors such as escape routes were predicted through offender profiling analysis in deciding where the cameras should be installed.

Figure2. A mobile model surveillance camera

The analysis was conducted using data held by Amagasaki city, including the number of snatch incidents recognized and the demographics of victims and offenders. The comparisons were based on the data made available by Hyogo prefecture.

Results and Discussion

The results were as follows.

First, comparing the number of reported cases before and after the posting of "Amaika-taro" in 2013, a total of 52 cases were reported in the three months of July, August, and September before the posting, and 43 cases were reported in the subsequent three months of October, November, and December, after the posting. Only in October, the month when the character was first posted, the number of incidents dropped to the single digits of eight cases, showing that the posting only had a transient effect. There were 14 newspaper reports on the initiatives in Amagasaki city in 2014, when concrete measures were started. Administrative efforts based on criminal information analysis were widely publicized through means such as my speech at the Community Safety and Urban Planning Conference and features in informational programs on local television. Reported cases comprised 32.71% of those in Hyogo prefecture as a whole in 2013, and this figure dropped to only 30.30% in 2014, indicating that there was no significant reduction. However, in 2015, the year mobile surveillance cameras were introduced, the rate was 21.78%, and the succeeding year, it hit its lowest rate of 19.27%.

Widespread knowledge of the cooperation between city hall and the police likely led to an increase in alerts to potential victims and deterred people from committing snatch crimes. In addition, increasing the accuracy of predictions on the areas where a crime might occur next and the potential escape routes of perpetrators through the accumulation of data via criminal

information analysis, coupled with the effective use of mobile surveillance cameras, might have facilitated early arrests. These effects are thought to have appeared after approximately one year.

The effect of the experimental social interventions on these reductions in the number of recognitions must be examined. Therefore, a comparison was made with Kobe city, which has the second number of snatch cases in Hyogo prefecture. Figure 3 shows the change in the number of reported cases between Amagasaki city and Kobe city, which had many reported cases. Kobe city has not taken any specific measures against snatch incidents; it is implementing crime prevention activities for street crime in general.

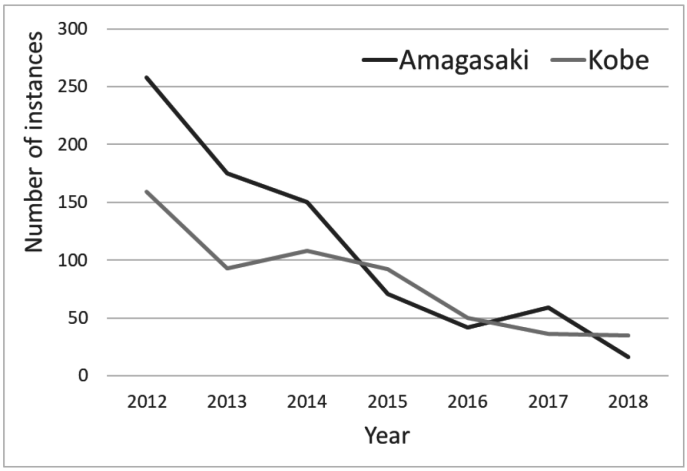

Figure3. Changes in the number of snatch cases between Amagasaki and Kobe cities

In 2012, 258 cases were reported in Amagasaki city and 159 cases in Kobe city; in 2018, only 16 cases in Amagasaki city and 35 cases in Kobe city were reported. Looking at the rate of decline between these years, we saw a 93.80% drop in Amagasaki city, 78.00% drop in Kobe city, and 90.51% in Hyogo prefecture. Reported cases in Amagasaki city accounted for 34.50% of all reported cases in Hyogo prefecture in 2012, whereas Kobe city accounted for 21.26%. In 2018, Amagasaki city and Kobe city accounted for 22.54% and 49.30% of all cases in the prefecture, respectively.

Conclusions

Based on the above results, the experimental social interventions in Amagasaki city are considered to have been effective. Detailed information on the crime was analyzed, and specific activities on the themes of Presenting a Message to Snatchers," "Targeted Patrols," and "Enhanced Surveillance" were considered to be effective. We have named this intervention the

“Amagasaki Method” and plan to continue to study its effectiveness.

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【Abstract】

犯罪心理学による社会実験的介入
尼崎市におけるひったくり対策

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本研究は、犯罪心理学の知見を用いた防犯対策の結果を報告するものである。

筆者は、兵庫県尼崎市からのひったくり予防の依頼を受けた。そこで、犯罪者の心理、行動特性、被害者の行動などの犯罪心理学的な知見と、犯行現場から得られた犯罪情報などを用いてデータ分析を行った。そして、分析結果をもとに、「ひったくり犯に対するメッセージの提示」、「標的型パトロール」、「監視性の強化」をテーマとした、活動を実施した。その結果、この犯罪予防のための社会内実験的な介入により、ひったくりの件数が減少した。この実験的介入を「尼崎方式」と名付けた。