

Developing a Profile for Burglary

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A New Approach and Application for Offender Profiling

As members and supporters of law enforcement, we are often looking forward to new advances in crime-solving techniques that may improve the process of identifying and apprehending offenders. Some notable developments include mtDNA analysis, advanced facial recognition software, and the use of offender profiling for serious violent crimes. While these techniques have aided in clearing many otherwise unsolvable cases, there is always a push to create new methods to help solve even more crimes, and at a lower cost for law enforcement.

One crime that has posed a major challenge in recent years is burglary. In fact, burglary is among the most common crimes in the United States, but it also has the lowest clearance rate of all major offenses, with just 13% of all burglaries solved nationwide (FBI, 2011). As the average burglary victim suffers over \$2,000 in property losses, and the total cost for law enforcement resources, insurance payouts, and economic impact is estimated at \$22,000 per burglary, it is also one of the most costly crimes in the United States (FBI, 2011).

Although forensic analysis, facial identification software, and offender profiling are all very useful tools, unfortunately they have had little impact on burglary. First, there is rarely video surveillance or eyewitnesses at burglary crime scenes for police to draw upon. Any forensic evidence that is found is often given a low priority in the lab, given the immense backlog of evidence from homicide and rape cases already waiting to be tested. Finally, there is also no profile currently available to help identify or limit potential burglary suspects. As a result, cases go cold, victims suffer, and perpetrators are free to reoffend.

We therefore felt that a new tool was needed to help investigators address these crimes, preferably relying only upon information that is available at burglary crime scenes. While no profile has ever been created for a volume crime such as burglary, we had two reasons to believe that such a profile would be possible. First, the underlying principle of offender profiling is that all crime scenes reflect an offender's traits and personality "in much the same way as furnishings reveal the homeowner's character" (Douglas et al., 1992, p. 21). In other words, crimes are generally reflections of the criminals who commit them, and we must identify the offense-offender link in order to create a profile.

Second, despite the popular opinion that burglary is often committed in a standard way, there seems to be sufficient variation in the way burglary is committed to differentiate multiple styles of the offense. So while the general public often imagines burglaries being committed by shadowy figures clad in black clothes and a ski mask who break into suburban family homes in the middle of the night, most members of law enforcement know that burglary is a more varied and complex offense than the stereotype. Burglaries can be planned or spontaneous, or they can even be highly personal in nature. And each of these crime styles could relate to a certain type of offender. We reasoned that this may indicate an offense-offender link is possible for burglary, and that such a link may be used by police to predict the traits of a burglar by evaluating the features of the crime scene.

Creating a Burglary Profile

To begin our project, a collaboration was formed between the academic and law enforcement co-authors on this paper in order to join together the knowledge, experience, and methods of both communities. We ultimately decided to utilize a statistical approach to analyze

the burglary data, which consisted of 405 randomly selected and solved burglaries that took place in Volusia County, Florida between 2008 and 2009. The offense and arrest records were collected for each burglary, as these provided critical information on the behaviors observed at the crime scenes, and the burglar(s) arrested for these offenses. The criminal history of each offender was also collected, in order to understand the background of every burglar in the study.

A statistical technique¹ was then used to identify if different offense styles exist among the crime scene behaviors, and if there are different types of burglars, based upon their physical and criminal history information. In short, the purpose of the analysis is to quickly identify patterns within a large dataset of cases, much like a detective notices patterns in cases after years of experience with a crime.

The results show that four sub-types exist among all offense and offender features, and that certain burglary styles are strongly linked to certain types of offenders. Specifically, the four styles of burglary identified are labeled: 1) organized, 2) disorganized, 3) opportunistic, and 4) interpersonal offenses. Each of the offense styles are committed by burglars with a unique set of traits and criminal histories. And each case, the features of the criminal generally reflect the features of the crime. The four offense styles, the burglars who commit them, and how to identify both, are briefly summarized below. (For more information on the profiles or analysis, please see Fox & Farrington, 2012).

Organized Burglaries

Organized burglaries come across as very professionally executed, and show signs of premeditation to reduce the burglar's risks and increase his or her gains. Organized crime scenes usually have no forensic evidence, and are left in a relatively unaltered state. The motivation for these crimes appears to be financial, with items such as jewelry, cash, or laptops often stolen. These burglaries generally occur at unoccupied homes during the daytime, when one may assume many families are at work or at school. While there are rarely any eyewitnesses to these crimes identified, the victim may have been visited by the

**Organized burglars...
Take jewelry from the jewelry
box, but make it look like no
one went into the jewelry box.**

¹ We used a Latent Class Analysis in the study, as it is an objective and statistical method of identifying underlying groups within a dataset.

offender prior to the offense. Organized burglars often use a ruse to gain intelligence on the victim, the target, and its contents prior to the crime.

Organized offenders give the appearance of being professional and experienced in this type of offense, often accumulating several arrests for theft or burglary between adolescence and mid-adulthood. However, for these types of offenders, burglary is usually not their only source of income. In fact, organized burglars will often have a legitimate job in a hands-on and flexible vocation such as tree trimming, delivery, or construction. They may have a girlfriend, wife, or family, own a car, and be very knowledgeable about police investigations, and how to conceal evidence to avoid detection.

Disorganized Burglaries

Unlike the organized burglaries, disorganized burglaries often result in a crime scene that is left in a state of disarray. These offenders carelessly smash windows to force entry into the premises, or ransack the home while apparently searching for goods, drugs, or cash. However, in many disorganized burglaries no items are stolen, perhaps indicating the offender did not find an item of interest, the motivation for the offense is not property based, or the offender was

**Disorganized burglars...
Dump out the jewelry box,
taking nothing or only what
looks interesting to them.**

interrupted. Forensic evidence is most likely to be discovered at disorganized crime scenes, with fingerprints and blood (often resulting from broken glass) the most common evidence found.

Like their offenses, disorganized burglars appear to be reckless, impulsive, and have little consideration of the consequences for their actions. These burglars may have difficulties holding a job, maintaining relationships, graduating from school, and may have issues with alcohol and/or drugs. Most disorganized offenders do not own a car, therefore they generally live within walking or bicycling distance from their targets.

Opportunistic Burglaries

Opportunistic burglaries may be identified by features indicating that the offender targeted a specific location because the opportunity that was presented to him or her. For example, in almost all opportunistic burglaries there is no forced entry, as the offender will enter through a window or

**Opportunistic burglars...
May never even get to the
jewelry box, instead stealing
whatever is out in the common
areas of the residence.**

door that was left open. These burglaries often take place at residential locations, which are usually unoccupied. There is no ransacking at the crime scene, the offenders are unlikely to steal high value items, and the items that are stolen are often seem random and for personal use. These burglaries appear to be spontaneous; the offenders do not bring burglary-specific tools to the crime scene, and will generally be scared off easily, sometimes before stealing anything from the home.

These burglars seem to be young and impulsive, and the burglary is usually a social activity committed by several teenagers after getting out of school. Female offenders may be present and play supporting roles such as look-out. Opportunistic burglars generally target locations near their homes, schools, or the homes of their friends, and may have a criminal record for committing other opportunity-based crimes, such as shoplifting.

Interpersonal Burglaries

The interpersonal burglary is unlike the first three styles, because these crimes take place when victims are present. The target of the crime is the occupant, not his or her belongings. It's implied that the goal of interpersonal burglaries is not to steal something, but rather to cause fear

**Interpersonal burglars...
Only take jewelry that has sentimental value to victim, or is in dispute between the offender and the victim.**

in the victims and/or show the offenders' power over them. If the burglar does steal anything, it will hold personal meaning to the victim, such as underwear, a cell phone, or driver's license.

These items may serve as a memento for the burglar, and may be kept as a reminder of the burglar's power over the victim.

Interestingly, most interpersonal burglars do not have a criminal record, though that of course does not mean that they have not committed crimes that went unreported to police. If the offender does have a criminal record, it will most likely involve domestic violence, stalking, voyeurism, or even rape. Interpersonal offenders are almost always adults, and have some connection to the victim. While most burglars that fit into the other burglary offender types go to great lengths to avoid confrontation with occupants, the interpersonal burglary offenders will choose a victim because they want access to the victim. Not surprisingly, the victims of these crimes are often female, and may have been in a relationship with the offender at some point. While the interpersonal burglars do not have the most serious impact financially (those are the

organized burglars), they could be the most dangerous, as we speculate that they could escalate to more serious interpersonal offenses such as rape and murder.

Applying the Profiles

A major concern among law enforcement is the accuracy of any new policing tool. An inaccurate technique, even if developed with the best intentions, may have a significant negative impact on investigations if it is utilized before challenges are identified. Similar concerns arise in the court system, as all policing techniques, such as profiling and polygraphing, must reach a significant level of accuracy through scientific and peer-reviewed research before being admitted as evidence (see *Daubert v. Merrell Dow Pharmaceuticals*, 1993; *Kumho v. Carmichael*, 1999).

Consequently, the scientific testing of profiling would not only help to identify the implications of using profiles out in the field, it could also help to improve profiling as an accurate and reliable policing tool. With sufficient testing, appropriate scientific methods, positive results, and general acceptance in the field, profiling could also meet the scientific and legal requirements to be entered as evidence in court for the first time since 2001 (see *State v. Stevens*, 2001).

Therefore, a major goal of our research was to test the accuracy of the burglary profiles in actual police investigations, using the first scientific experiment conducted on profiling. Our multi-agency experiment involved the cooperation of several major police departments in Florida, matched on several key criteria such as crime rate, location, population, and number of sworn officers. One department, called the treatment group, was selected to receive training on the profiles and how to implement them in their burglary investigations. The remaining police departments served as control groups in the experiment, and conducted their investigations as usual without any use or knowledge of the burglary profiles.

After observing each of the departments' burglary arrest rates² for six months, we used an analysis of variance to compare the arrest rates for the treatment group to the control groups.

² While the UCR looks at clearance rates, which comprise of cases solved by arrest and exceptional means, we wanted to see the impact of the profiles solely on arrests. Therefore, departmental arrest rates are used as the outcome measure in this experiment.

Results show that the police department that used the burglary profiles had a significant increase in burglary arrests, compared to the police departments that did not use the profiles, despite having nearly identical arrest rates at the start of the experiment. Specifically, the agency using the burglary profiles cleared nearly *four times* as many burglaries as the departments which did not have access to the burglary profiles. And, when the profile was used, the odds of a burglary case resulting in arrest more than *tripled*, compared to other cases in the control groups during the same time frame. Together, these results show that the burglary profiles have a positive impact on the ability to solve cases, and this impact is quite substantial. See Figure 1 for a diagram of the experiment's results.

Figure 1. Results of the Profiling Experiment.



Law Enforcement Savings

At a time when many law enforcement agencies are forced to make considerable cuts in their budgets without compromising their ability to prevent and solve crimes, a major benefit of these profiles becomes apparent. If the profiles are accurate and have little or no cost to a police department, this effective and cost-efficient new tool may be an answer to the problem. In fact, the profiles may save a great deal of money for both law enforcement and society. They could help reduce the large proportion of burglaries that normally go unsolved, and the enormous costs associated with those offenses.

For instance, in 2011 there were over 2.1 million burglaries reported in the U.S., but only 277,877, or 12.7%, were ever solved (FBI, 2011). This leaves over 1.9 million burglaries unsolved in that year alone. As the burglary profiles raised arrest rates by 400% in our experiment, there is reason to believe a similar effect would occur if the profiles were implemented in police agencies nationwide. By quadrupling the national burglary clearance rate to a record-setting 50.8%, about 833,600 additional burglaries would be solved every year. This would also lead to \$1.7 billion in annual savings to victims (at \$2,000 per victim), if every solved burglary prevents just one additional burglary in the future. When the total societal impact of burglary is considered (\$22,000 per offense), the potential nationwide savings rises to over \$18 billion annually. Even if the utility of the profiles is overestimated, the number of burglaries prevented by a single offender's arrest is likely underestimated. Research has shown that burglars generally commit between 2 and 38 burglaries per year, with the average offender committing 4 burglaries annually (Piquero & Blumstein, 2007). Therefore, the savings to victims, police, and society could be up to *\$72 billion* nationwide, each year.

Finally, as the cost to investigate a single burglary has been estimated at nearly \$7,000 of the more than \$22,000 in total societal expenses per offense, the potential savings if all U.S. law enforcement agencies use these profiles may be as much as \$5.8 billion per year. For a medium-sized police department such as Daytona Beach, which has about 1,800 burglaries per year, this translates to over *\$6.3 million* in direct savings for the department, and *\$20 million* in savings to the community every year. As the profiles cost only a fraction of that amount to implement, it becomes clear how easily and quickly these profiles may benefit police departments regardless of whether they are facing budget cuts, or not.

Research Summary and Future Policing Techniques

The purpose of our study was to develop a new and effective tool for law enforcement that addresses the problematic crime of burglary. After using a scientific method to create the burglary profiles, they were then implemented into actual investigations to determine their effect on arrest rates through the first profiling experiment. We found that the burglary profiles raised arrest rates by 4 times for the agency using the profiles, and the odds a burglary resulting in an arrest tripled in cases where the burglary profiles were used compared to cases when they were

not. As these profiles were tested in the field, and in scientific manner, the results will likely generalize to additional real-world settings as well.

Still, it is important to note that the profiles were developed using a sample of burglaries from central Florida, and the exact behaviors related to each of the four offense styles may differ for burglaries committed in other parts of the country. For instance, organized burglaries in a major city may be committed more often on commercial premises, which are more common and lucrative than inner-city apartments, and opportunistic burglaries may be less prevalent in colder climates, when fewer windows and doors are left open. Additional research is needed to determine the specific features of the burglary profiles for each of the major regions within the country, and how those profiles differ to the burglary styles found in our Florida-based sample, before applying the burglary profiles to specific jurisdictions across the nation.

A randomized experiment would also be useful to establish true causality between profiling and arrest rates, and examine how, and in what type of cases, profiles lead to the arrest of an offender. Such research would shed more light on the accuracy of the profiles, and indicate how to improve the profiles to better serve police and solve open cases. We strongly encourage collaborations between law enforcement and academics on research such as this in the future.

In short, this research aimed to lay down a stepping stone on the path to advancing and growing the technique of offender profiling, and apply this promising tool to one of the most prolific and difficult to solve crimes in the nation.

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