Correlates of Specialization and Escalation in the Criminal Career: Summary Report

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Do offenders specialize in a single crime type or cluster of similar crime types? Do offenders increase the seriousness of their criminal offenses over the course of their criminal careers? Blumstein et al. (1986, 1988) and LeBlanc and Frechette (1989) have suggested that at the onset of the criminal career, offenders will tend to commit a wide variety of offenses. However, as offenders age, and gain more experience in committing criminal acts, they should become more proficient at some crimes and should be increasingly likely to repeat those crimes where they have been more successful.

Alternatively, though not to the exclusion of the notion of specialization, some offenders are also expected to increase the severity of the crimes they commit across their criminal careers, ultimately specializing in a more serious type of crime. The reasoning here is similar: offenders who have gained a certain level of expertise in one type of crime (or cluster of similar types of crime) may be more willing to commit a more serious, and presumably more complicated type of crime, because they have acquired the requisite skills for less serious and less complicated forms of crime. Thus, it is possible for escalation to take a number of different forms. For example, offenders may move from committing relatively less serious property crimes to relatively more serious property crimes, move from committing less serious violent crimes to more serious violent crimes, or move from committing property crimes to violent crimes. In each case, the offender is seen moving from a relatively less serious crime type to a relatively more serious crime type, but is hypothesized to do so after first gaining experience in committing the less serious forms of crime.

Research evidence on offender specialization tends to show that the types of crimes committed by an offender at two consecutive points in time will often be quite similar. What has
varied in this research is the apparent strength of the relationship between successive crime types. Perhaps one of the most important factors to influence the strength of the evidence for specialization has been the age of the offender. The evidence for offense specialization is weakest among juvenile offenders, where research focusing on juvenile arrest sequences has often found a weak relationship between crime types (Bursik, 1980; Cohen, 1986; Davis, 1992; LeBlanc and Frechette, 1989; Nevares et al., 1990; Rojek and Erickson, 1982; Wolfgang et al., 1972, 1987). Other work focusing on juvenile offender samples has found stronger evidence of specialization, but it has often been limited to a small number of property theft and status (e.g., runaway) offenses (Farrington et al., 1988; Kempf, 1987; Lattimore et al., 1994; Paternoster et al., 1997; Stander et al., 1989; Tracy et al., 1990). The most convincing evidence for specialization appears in studies that use data on adult arrest histories, where Blumstein et al. (1988) found evidence of specialization in fraud and violent offenses, Brennan et al. (1989) found evidence of a small number of specialists in violence, while Britt (1996) found strong evidence of specialization in serious property, drug and violent offenses.

Relatively little research has investigated patterns of escalation in the seriousness of criminal offending. The published research, thus far, has failed to present a consistent picture of how strong the evidence is for any escalation among criminal offenders. Similar to the research on specialization, there is very little evidence of increasing severity of criminal offenses among juvenile offenders (Davis, 1992; LeBlanc and Frechette, 1989; Tracy et al., 1990; Wolfgang et al., 1972). Although limited, there appears to be weak to moderate evidence of escalation among adult repeat offenders (Blumstein et al., 1988; Britt, 1996).

Race and ethnicity have received limited attention in the study of specialization and
escalation. The overall effect of race is unclear. For example, Bursik (1980) found weak overall
evidence for specialization in his sample of juvenile offenders, but found significantly different
crime sequences for white and black youths. Lattimore et al. (1994) similarly found different
offense patterns for white, black and Hispanic youth, while Britt (1996) found different patterns
of specialization for white and black adult offenders. Wolfgang et al. (1972), Tracy et al. (1990)
and Blumstein et al. (1988), however, found similar patterns of specialization among white and
black juvenile and adult offenders. Race does not appear to have a direct effect on patterns of
escalation, regardless of whether the research has focused on juveniles (Tracy et al., 1990;
Wolfgang et al., 1972, 1987) or adults (Blumstein et al., 1988; Britt, 1996).

Are the Correlates of Crime Also the Correlates of Specialization and Escalation?

Virtually all of the research on specialization and escalation has focused on establishing
whether offenders tend to commit similar and/or more serious types of offenses over the course
of their criminal careers. What has not been studied are the effects of other social and
background characteristics on the likelihood that offenders specialize or escalate their offending
over time. Comprehensive reviews of the research on the correlates of crime and delinquency
show that a constellation of personal background characteristics (e.g., personality and behavioral
indicators) and social characteristics (e.g., family and peer relationships) will affect the
likelihood that an individual commits criminal acts (see, e.g., Blumstein et al., 1986; Gottfredson
and Hirschi, 1990; Wilson and Herrnstein, 1985). What remains unclear, and is the focus of this
research, is how these kinds of offender characteristics may influence patterns of offending
throughout the criminal career.

DATA AND METHODS
The data analyzed to test these hypotheses come from the Early Identification of the Chronic Offender Study by Haapanen and Jesness (1994), which was obtained from the ICPSR's National Archive of Criminal Justice Data. The youth who participated in this study were housed under the supervision of the California Youth Authority (CYA) in the 1960s. The youth were interviewed before and during (immediately prior to release) their supervision by the CYA. The CYA was able to obtain extensive background, behavioral, social, and psychological information on the youth. The sample used in the following analyses comes from the youths who were detained at the Preston facility (N=1,715). Haapanen and Jesness later obtained detailed arrest histories for these juvenile offenders by checking records from the California Bureau of Criminal Identification and Investigation in 1978 and records from the FBI in 1980. Preliminary analyses of this data revealed this information to be relatively complete and that most of the youth were rearrested at least twice (about 95%).

These data provide a valuable resource for investigating whether the links between adolescent correlates of adult crime affect the likelihood of specialization and escalation patterns in similar ways. In order to test the hypotheses presented above, extensive background and arrest history data are necessary, and the Early Identification of the Chronic Offender data set appears to meet these needs. Haapanen (1990) has analyzed these data in regard to how adolescent correlates of criminal behavior influence repeat offending in adulthood, but he did not investigate how adolescent predictors of crime influenced crime type sequences. Thus, the following analyses will extend Haapanen's work by testing a multivariate model of specialization and escalation, rather than a predictive model of chronic or repeat offending.

**Measures**
Crime type is measured as arrests for violence (homicide, rape, assault), robbery, burglary, other property (e.g., larceny, forgery, motor vehicle theft), drug and alcohol, and other miscellaneous offenses, consistent with the offense categories used by Lattimore et al. (1994).

Seven indicators of the offender's personality characteristics are measured: maladjustment, aggression, alienation, withdrawal, anxiety, repression, and asocial index. All seven scales are components to the Jesness Inventory (Haapanen and Jesness, 1994).

Family environment and relationships are measured by several items. Family closeness was the only measure to have a significant relationship with type of crime.

Peer environment and relationships prior to CYA commitment are measured with three items, but the only significant relationship was found for whether the youth tended to commit illegal acts alone or in a group context.

Age at time of arrest for each arrest is used to test for variable effects of age on type of offense. This measure was found to have greater predictive power over age at first arrest.

The offender's race is measured as white and non-white.

Analytical Strategy

In order to test for patterns of specialization and escalation among repeat offenders, only those offenders with a record of at least ten arrests (n=935) are retained in the sample. Restricting the sample in this way permits a test for specialization and for escalation among a group of offenders who were clearly more active offenders. Another benefit to restricting the sample to offenders with at least ten arrests is that it increases the chances that these criminal activities were pursued over an extended time period, which is important for testing hypotheses regarding long-term change in patterns of criminal offending.
Type of offense is modeled with a series of multinomial logit models. To test for changes in offense types over time, the arrest information for each of the ten arrests is pooled, so that the dependent variable is type of crime (as measured above), and predicted by characteristics of the offenders. Pooling the data in this way results in 9350 person observations (935 offenders with 10 arrests each). After establishing a naive baseline model of specialization and of escalation, three substantively meaningful models are estimated: Model 1 is conceptually equivalent to prior research on specialization and escalation and takes into account only information on the arrest number (i.e., first, second, etc.); Model 2 includes offender background characteristics in addition to the arrest number; and, Model 3 includes interaction effects of age at time of arrest and race with arrest number to test hypotheses related to whether age and race have time-varying effects on the likelihood of committing different types of crime. The predicted probabilities from Models 1 through 3 can then be interpreted in light of the support they indicate for patterns of specialization or of escalation among this group of offenders.

FINDINGS — HIGHLIGHTS

- Without considering background characteristics of the offender, the chances of each type of offense are generally stable across the first eight arrests, but begin to increase for more serious and violent offenses at the ninth and the tenth arrest (Figure 1).

- When the offender's background characteristics are included in the statistical model, the most common offense falls into the other miscellaneous category, while all other offense probabilities are quite small (Figure 2).
As age at the time of arrest increases, so too do the chances of a violent or a drug and alcohol offense, while the chances of other types of crime decline with increased age (Figure 3).

Consistent with other research on the race distribution of crime, white and non-white offenders were differentially likely to commit each type of offense (Figure 4).

Family closeness and committing crimes alone had relatively small effects on the chances of committing different type of crime (Figure 5).

Social psychological indicators of maladjustment, aggression, alienation, withdrawl, anxiety, repression, and being asocial significantly affected the chances of different types of crime. These effects are particularly large for offenders with very high or very low scores (Figures 6a and 6b).

There is a pattern of differential likelihood of crime type commission that varies by age, race and arrest number for all offenses (Figures 7 through 13a and 13b).

**SUMMARY**

This research examined the effects of adolescent correlates of crime on patterns of specialization and escalation in the criminal career. Although a small, but growing, body of research has shown adult offenders tend to specialize in (repeat) the same crime type and/or to
escalate the severity of crime types over their criminal careers, there has been little work aimed at trying to account for the factors that predict offense sequences. The results reported above show that adolescent correlates of criminal behavior predict future types of offending, which has consequences for the observed patterns of specialization and of escalation. To summarize, these results provide only weak evidence of specialization and of escalation across a sequence of ten offenses, once offender background characteristics have been controlled statistically. However, and substantively important, these results also indicate that background characteristics of the offender, such as age, race, family background, whether crimes are committed in a group context or alone, and social psychological assessment, are useful predictors of the types of offenses that may be committed over time.

These results begin to shed light on the mixed nature of findings in prior research on specialization and escalation. Specifically, prior specialization and escalation research has typically focused on bivariate arrest transition matrices and found a significant relationship between consecutive types of crime. These results also find evidence of a moderate relationship between type of crime for two successive arrests, when no other offender information is used. Where these results part from prior research is what happens to this relationship once the offender's background characteristics are taken into account, and which has not been a focus of prior research on specialization and escalation. A consequence of this finding may be that prior research finding evidence of specialization and of escalation may be limited by its exclusion of other relevant characteristics of offenders that affect patterns of criminal behavior.

There are two important implications of these results for future specialization and escalation research. First, there are interactive effects of age at time of arrest and race with the
type of crime committed, and thus the apparent pattern of specialization and of escalation. Although the level of specialization and of escalation was low compared to the model without background characteristics, the non-white offenders in the sample had different patterns of offending — offense sequences — than the white offenders included in the sample, whose level of specialization and of escalation was particularly low. Second, given that there are race-specific patterns of offending — white and non-white offenders are differentially likely to specialize or to escalate the seriousness of their offending — these results suggest that future research on offense sequences across the criminal career will need to be sensitive to these variable patterns. For example, should all cases be pooled into a common sample of offenders, it is possible to reach inaccurate conclusions about the true likelihood of repeating the same offense or switching to a different type of offense.

Second, this research shows that adolescent correlates of criminal behavior continue to have predictive power with subsequent offense patterns. This issue has not been examined in prior research, and the nature of the sample used in this analysis suggests caution in generalizing the results, but these results indicate that knowledge of a serious juvenile offender's background may be quite useful at estimating the kind of risk the offender poses for society. Thus, for example, the results show which factors appeared to increase the likelihood of later violent behavior or drug-related offending. What becomes necessary at this point to cross-validate these results with other, more contemporary samples of juvenile offenders who can be assessed and then followed to test for similar effects of behavioral, social, and psychological characteristics on the types of crime committed.

POLICY IMPLICATIONS
Although these results are more suggestive than conclusive about the impact of offender characteristics on levels of specialization and of escalation, there are at least three preliminary policy implications that can be drawn from this work.

- Consistent with related research on criminal career trajectories that focuses on the timing and the quantity of offending over the criminal career, this research shows that similar issues arise out of the study of the type of offending. Thus, where characteristics of offenders can be used to predict trajectories of general criminal offending, this work suggests that it may also be possible to develop analogous models of offense types over the criminal career.

- The evidence linking characteristics of offenders to types of offenses committed is encouraging of attempts to identify offenders who are more likely to specialize or to escalate their offending. Although these results are not conclusive, they indicate that background characteristics of offenders do have predictive ability with future violence, property, and drug-related offenses. Clearly, more research will be needed to identify which characteristics of offenders have the greatest impact on patterns of specialization and of escalation, but it appears plausible the such models could be developed.

- While it is doubtful that individual characteristics and tendencies to commit certain types of crime can be treated in an absolute way, it may be possible, given further development of multivariate models of offense sequences, to identify characteristics...
of offenders that substantially increase the chances of certain types of crime. If these characteristics can be further identified and refined, then it may be possible to develop treatment programs for offenders that facilitate recognition of these tendencies and teach offenders how to deal with these characteristics that may reduce the chances of committing future offenses.