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Abstract

This study looks at sensation seeking and daily activities as possible determinants of criminal behavior within the age range of 15 to 30. A male offender and a male nonoffender population between the ages of 15 and 18 were compared on two questionnaires; Zuckerman's Sensation Seeking Scale, Form VI, (SSS) and the Daily Activities Questionnaire The design consisted of one independent variable with two levels and multiple dependent variables. The research hypotheses indicated that the juvenile offender group would score higher on both Disinhibition subscales of the SSS and lower on the DAQ (Intention - Disinhibition (IDIS); Experience - Disinhibition (EDIS)). A multivariate analysis of variance and a discriminant function analysis were performed on the data. The results indicated that the offenders scored significantly lower on the IDIS scale than the nonoffenders. F statistics are as follows: EDIS -F(1,84)=.620, p > .05; IDIS - F(1,84)=5.666, p < .05; DAQ -F(1,84)=2.998, p > .05. The results of the SSS and DAQ suggest that there is not a difference between the groups in the activities in which they have already engaged, but there is a difference in the activities in which they intend to engage in the future.

"Sensation Seeking and Daily Activities as Determinants of Criminal Behavior"

bу

Rebecca S. Fulper

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Dr. James Tromater, Committee Chairperson	Date
Dr. Andrew Newcomb, Committee Member	3/29/88 Date
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SENSATION SEEKING AND DAILY ACTIVITIES AS DETERMINANTS OF CRIMINAL BEHAVIOR

Ву

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B.S., Mississippi State University, 1981

Submitted to the Graduate Faculty
of the University of Richmond
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in

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Sensation Seeking and Daily Activities as

Determinants of Criminal Behavior

The study of crime and identification of a criminal personality has been perhaps one of the more frustrating areas of research for the social sciences. Attempts to explain criminality through psychological, sociological, environmental, biological, or demographic factors have been for the most part unsuccessful and inconsistent. Research strongly indicates that a combination of some or all of these factors provides the best explanation and grounds for possible prediction of criminal behavior (Wilson & Herrnstein, 1985).

Of the many variables that have been cited for having possible relationships to criminal propensity - age, sex, race, socioeconomic status (SES), labor force, schools, religion, family life, and genetic influences (Lampe, 1978) - there is one that appears to stand unaffected even when other variables are controlled. This is the age variable (Tittle, 1980; Hirschi & Gottfredson, 1983; Wilson & Herrnstein, 1985). Some researchers question if there is any better predictor of criminal propensity than age (Hirschi & Gottfredson, 1983).

Crime statistics and research show that people are more likely to engage in criminal behavior in the age range

of 15 to 30 (Wilson & Herrnstein, 1985; Hirschi & Gottfredson, 1983; West & Farrington, 1973; Greenberg, 1985). Wilson and Herrnstein (1985) cited the 1980 Uniform Crime Report arrests to show that persons between 15 and 30 years of age were arrested for over 65% of the property crimes in the United States, even though they only comprise approximately 25% of the total population. This indicates that a small percentage of our population is accounting for a large percentage of property or nonviolent crimes.

The relationship of culture, gender, and race to the criminally active age range of 15 to 30 have all been studied. In general the research indicates that regardless of culture, gender, or race, persons within each of these differA[Aent groups tend to be most criminally active between the ages of 15 to 30, with the peak age averaging around 16. Though the age range for the commission of crimes is about the same for these three groups, there is a difference in the number of crimes committed comparing males to females and blacks to whites. For instance, males are arrested for a significantly greater number of crimes than females (Wilson & Herrnstein, 1985), and there is a higher percentage of blacks than whites reported in crime statistics (Laub, 1983; Greenberg, 1985; Wilson & Herrnstein, 1985). In reviewing self-report, the difference between blacks and whites becomes less (Wilson & Herrnstein, 1985).

Three other factors which are often targeted in crime research to explain criminal propensity are SES, unemployment, and family life. Some self-report studies have failed to find the expected negative relationship between SES and delinquency (Hirschi, 1969; Tittle & Villemez, 1977; Tittle, Villemez, & Smith, 1978; Loeber & Dishion, 1983). Contrary to these findings, the study by Elliot, Ageton, and Huizinga (1978), found that delinquency was two to four times higher among lower and working class youths than middle class youths, but only for the more serious offenses.

Inconsistencies in the SES/delinquency research have been explained in a couple of ways. Greenberg (1985) reports that the negative relationship between SES and delinquency exists mostly when delinquents with the more serious offenses are included. Hirschi (1969) reported that the use of self-report data compared to official statistics is sometimes said to be the reason for finding no relationship; however, his study also looked at official statistics which also failed to show the negative relationship. Winslow (1976) stated that SES is not the whole picture. An important factor is where the family/person lives; hence, a lower class youth in an upper class neighborhood is less likey to become delinquent.

Data from other delinquency research do not fully support the predictions that unemployed rather than employed teenagers are more likely to engage in criminal behavior, or

that teenagers with access to legitimate funds to support their needs will be less likely to steal (West & Farrington, 1977; Hirschi, 1969). Shannon (1982) found that unemployment among older youths leads to delinquency, whereas the Gottfredson study (1984) reports that it has no effect.

Greenberg (1985) looks at these inconsistencies found in the delinquency/employment research as being due to the failure to account for such factors as job satisfaction whether or not the job is meeting the needs of the person who is doing it. In other words, if an adolescent is very materialistic and has a low paying job, he/she is less likely to be making enough money to meet his/her needs. The result may be stealing on the job and getting fired or stealing from someone else. West and Farrington (1977) found that delinquents tend to spend their money faster than nondelinquents and usually do not have savings accounts. This finding supports Greenberg (1985) because it shows that delinquents are more likely to spend their money, thereby making it more likely not to have enough money to meet their future needs.

Hirschi (1969) presented results from research on delinquents and daily activities and concluded that those adolescents who tend to have involvement in "adult" activities, such as smoking, drinking, riding around in a car, dating, and spending leisure time talking to friends are

more likely to become involved in delinquent acts. Just filling an adolescent's time is not as likely to keep him/her away from criminal behavior, as will filling their time with something they want to do and enjoy doing.

West and Farrington (1973) report that in their study of delinquent boys, delinquents spent little time with parents or other family members and received little encouragement to organize their leisure time constructively. Much of their time was spent "on the street". They tended not to have holidays away from home and to have fathers who did not participate in their leisure pursuits. These findings were consistent across all three family income levels.

West and Farrington (1977) summed up the use of leisure time by a group of delinquents in their study as somewhat haphazard, disorganized, and generally unconstructive. Delinquents compared to nondelinquents spent more time away from home, sometimes aimlessly riding around or hanging about on the street.

The question remains, "Why does there seem to be such a strong relationship between criminal behavior and age?".

There are many plausible theories which lack empirical support. For example, Wilson and Herrnstein (1985) provide the following explanations:

"Youth is the adventurous time of life; old age, the settled time. This leads not only to more youthful crime, according to this line of thought, but also to more detectable youthful crime. Older

people often occupy positions of trust, in which they can commit surreptitious crimes. Young people are less skilled in their work than older people hencemore likely to be caught when they break the law. Youth is a time of intense and unfulfilled passions, leading to crimes for goods and pleasures that older people either crave less or can enjoy legally. Young people suffer more unemployment, hence have not only the need but the time for illegal gains. Young people experience more inequity than older people, and tend to die young, leaving a more law-abiding population to grow old. The criminal justice system is lenient toward the very young and old, producing an apparent peak in offending in between. Young people are more exposed to the disinhibiting influences of the mass media; old people are more interested in religion, with its moral injunctions." (pp.144 - 145).

Marvin Zuckerman (1979) describes a personality type which is also related to this age range and may help to explain why the age range of 15 to 30 is so prone to criminal behavior. This personality is called a sensation seeking personality.

Zuckerman (1979) has summarized the findings of research on sensation seeking and risk-taking activities. He reports that high sensation seekers tend to engage in moderately risky activities. They tend to volunteer for experiments that offer the possibility of some new and unusual type of experience. Sensation seekers are more willing to change locales and enjoy traveling, even if risk is involved.

Negative life stresses have more impact on low sensation seekers than high sensation seekers. These data are consistent with a risk model of sensation seeking which

states that high sensation seekers do not perceive what appears to be a risky situation to most people, as risky.

In order to connect sensation seeking with criminal propensity it is important to understand the groundwork for sensation seeking. Sensation seeking is based on the idea of sensory reinforcement. High sensation seekers have an internal need for stimulation which is not usually satisfied by the daily activities common to the average person. An internal need suggests the presence of biological factors related to sensation seeking. This question needs much research; however, as cited by Zuckerman (1983), studies have indicated their presence. It is interesting to find that much of this research shows similarities in the biological factors of sensation seekers and criminal offenders.

There is evidence that the age range is similar for high scores in sensation seeking and involvement in criminal behavior. Zuckerman (1979) summarizes the research on age and SSS Form II General Scale with samples of psychiatric patients, normals, hospital employees, and male and female prisoners. These studies all reach the same conclusion — a significant negative correlation between age and sensation seeking scores. The Farley and Cox study (1971), looked at sensation seeking in adolescents in the age range of 14 to 17 and found little fluctuation in their scores. Zuckerman (1979) states that age 14 is probably the lowest appropriate

age for the administration of the SSS. Additional research supports the decline in sensation seeking scores with age and finds that high sensation seeking scores occur at approximately the same age range as criminal behavior, 15 to 25, (Thorne, 1971; Zuckerman, Eysenck, and Eysenck, 1978; and Ball, Farnill, and Wangeman, 1984). The relationship between age and sensation seeking scores is great enough that Zuckerman recommends that age be controlled statistically in sensation seeking research if the age range exceeds one decade.

A review of the research on personality types and criminal offenders also reveals an interesting link between sensation seeking and criminal behaviors. There appears to be a relationship in the scores of sensation seekers and criminal offenders on the Hypomania and Psychopathic Deviate scales on the Minnesota Multiphasic Personality Inventory (MMPI) and with the Socialization scale of the California Personality Inventory (CPI) (Thorne, 1971; Zuckerman, 1979). Studies using the Eysenck Personality Questionnaire (EPQ) found that there is a positive relationship between the scores of delinquents on the Extraversion and Psychoticism scales (Forrest, 1977; Eysenck & Saklofske, 1980); consequently, high sensation seekers tend to score high on the Extraversion and Psychoticism scales of the EPQ (Zuckerman, Eysenck, & Eysenck, 1978).

The earlier forms of the SSS were made up of four subscales which resulted in one total sensation seeking score. The version used in this research also consists of four subscales; however, these four subscales were made up of two of the subscales from the earlier versions — the Disinhibition scale (DIS) and the Thrill and Adventure Seeking scale (TAS). Both of these scales have two components — activities in the past (Experience) and activities in the present (Intention), (Zuckerman, 1984). This study will focus mainly on the Experience—Disinhibition scale (EDIS) and the Intention—Disinhibition scale (IDIS) of the SSS.

Research has consistently shown a relationship between criminal behavior and age; however, research findings on other suspected causal factors have unfortunately been inconsistent. Some of these inconsistencies have been attributed to the use of varied populations and differences in variable controls, as has already been discussed. A major problem in studying criminal behavior is in obtaining a known population of offenders and nonoffenders. The offender population can be more easily obtained by using those who have been convicted; however, in obtaining a comparison group of nonoffenders, one may end up with many ex-offenders (Garabedian & Gibbons, 1970). For this reason self-report

studies are often encouraged in hopes that the offender will reveal him/herself (Eysenck, 1977).

A factor which may cause inconsistencies in criminal behavior studies results is satisfaction — whether or not one is satisfied with his/her job, school, or way of life. The proposed study will attempt to look at the daily activities of targeted populations, as well as satisfaction with job, school, and life in general in relation to scores on the SSS. An attempt will be made to discriminate between male offender and nonoffender populations between the ages of 15 and 30 years through the use of the SSS, Form VI and the Daily Activities Questionnnaire (DAQ). This study will operate under the premise that there will be high scoring offenders and nonoffenders on the DIS scales of the SSS. The score on the DAQ in relation to the DIS scores will be the key to predicting who is at risk to become an offender.

The hypotheses to be tested are: (a) the mean sensation seeking scores on the EDIS and the IDIS subscales will be significantly higher for offenders than nonoffenders; (b) the mean DAQ scores will be significantly lower for offenders than nonoffenders; (c) the discrepancy between the mean EDIS subscale scores and the mean IDIS subscale scores will be significantly higher for offenders as compared to nonoffenders. Additionally, a discriminant analysis will be

applied to classify the juveniles, and the equation will be validated against the adult offenders.

If these hypotheses are supported, this study will have shown that offenders tend to be high in sensation seeking and do not engage in as many satisfying, appropriate, and prosocial activities, whether it be through work, clubs, school, sports, or hobbies as do the nonoffenders. This information could be of importance to criminal rehabilitation programs as well as to anyone who is involved in the upbringing of our youth. Support of the research hypotheses would indicate the need to develop an effective approach to teaching youth how to structure their leisure time and how to obtain satisfaction in their daily activities.

Method

Subjects

A total of 156 male subjects were included in the study; however, only 102 of the subjects' responses were used for the analysis. Fifteen of the subjects had to be dropped because their age exceeded the range of 14 to 30 years of age; six subjects had to be dropped because they left a significant portion of their questionnaires blank; thirty-one subjects were deleted because their scores exceeded the limit on the lie scale of the SSS; and two subjects were randomly dropped from the nonoffender population so that there would be equal groups. Forty-three males between the ages of 15

and 18 years were from a private high school in Richmond, Virginia. This school is predominately white, but it has a wide range of socioeconomic levels. This group made up the nonoffender population. The offenders consisted of 43 males between the ages of 14 and 18, who were currently being held at the Reception and Diagnostic Center in Richmond, Virginia. Also making up the offender population were 16 males between the ages of 19 and 30 from the New Kent County field unit in New Kent, Virginia.

Tests

Zuckerman (1984) has recently developed a new Sensation Seeking Scale (SSS), Form VI. This form concentrates on two content areas, Thrill and Adventure Seeking (TAS) — items which indicate a desire to engage in physical activities involving elements of speed, danger, novelty, and defiance of gravity; and Disinhibition (DIS) — items which indicate a need for a release through uninhibited social activities with or without alcohol. In the SSS, Form VI, reports of actual experiences are separated from desired or intented future experiences on both content areas. The four scales on Form VI are: Experience — Thrill and Adventure Seeking (ETAS); Experience — Disinhibition (EDIS); Intention — Thrill and Adventure Seeking (ITAS); Intention — Disinhibition (IDIS).

Reliabilities for SSS, Form VI have been shown to be good. Internal reliabilities range from .83 to .94 for EDIS,

ITAS, and IDIS and from .62 to .66 for ETAS. Retest reliabilities range from .84 to .93. Validity data on the SSS show a low relationship with the Socialization scale of the CPI and a moderate relationship with other sensation seeking scales (Zuckerman, 1985).

Form VI is used in the present study because it has better reliabilities than previous forms and because it has a higher concentration on the DIS subscale, which is more common to the offender population than the other scales (Emmons & Webb, 1974; Blackburn, 1978; Zuckerman, 1978). Another reason for using it is because it includes a measure of the discrepancy between what one has done and what one would like to do. This may prove useful in understanding why offenders repetitively engage in criminal behaviors.

The Daily Activities Questionnaire (DAQ), developed by this writer, is a self-report questionnaire focusing on the subject's educational level and goals, participation in activities and hobbies, satisfaction in school, job, and life in general, and criminal activity. The internal reliability for the DAQ, using the two populations in this study was rather low. The reliabilities on the daily activities portion of the DAQ ranged from .24 to .41, and ranged from .40 to .53 on the satisfaction portion of the DAQ. For information on scoring the DAQ, see a copy of the questionnaire in the appendix section.

Procedure

All subjects signed a consent form in accordance with the ethical guidelines (American Psychological Association, 1981). Since most of the subjects used in this study were minors, permission was obtained in the following manner: at the private high school, the principal cosigned the consent forms; at RDC, the research department for the Department of Corrections for the State of Virginia gave written consent for the juveniles to participate. The sequence of the questionnaire administration was alternated for each testing session, so that approximately one half of the subjects from each group were administered the DAQ first, while the other half were administered the SSS first.

All male juveniles present at RDC were given the opportunity to participate in the study. The questionnaire administration was held in the recreation room of each of the cottages, of which there were four with an average of 15 boys in each. Those boys choosing not to participate left the immediate area.

The subjects at the private school were obtained from two arbitrarily selected religion classes, a class which is required of all of the students. The questionnaire administration was done in two group sessions in the classroom. Everyone agreed to participate.

All inmates at the New Kent field unit were given the opportunity to participate in the study. The questionnaire administration was held in the dining hall in two sessions. Those choosing not to participate went back to their living quarters.

Consent forms were distributed first, then each group was given a brief explanation before the administration of the questionnaires as follows:

"You are being asked to participate in a research project which I must do to meet requirements for a class at school. It is very important that you are completely honest on all questions. For your protection and assurance of anonymity, please do not put your name, address, or any identifying information or marks on any papers that I give you. Please refrain from talking when I begin to hand out the questionnaires. I will tell you more about the research project after you have completed the questionnaires. There is a consent form in front of you which I would like you to read and ask me any questions concerning it that you may have. If you agree to participate, please check that response and sign the form at the bottom. do not wish to participate, you may do as you are instructed by your staff on-duty.".

A subject was selected from each group to gather the consent forms and give them to me. The questionnaires were then handed out, and each group was reminded to read the directions and complete the questionnaires without talking. All subjects were encouraged to be honest.

Questionnaire administration time was about 30 minutes total for each group except for the groups at RDC. For some reason it took most of these groups about 15 minutes longer.

Each subject was given a plain white envelope with the questionnaire sequence printed on the front, and they were asked to enclose their answer sheets. The researcher collected these envelopes as each subject finished.

Debriefing was done subsequent to the completion of the questionnaires for each group. It was explained to each group that the answers of persons who have a history of being involved in illegal activities would be compared to persons who have no history of involvement in crime. It was also explained that the results could be beneficial in developing more effective rehabilitation programs, as well as preventive programs. The researcher then opened the floor for questions.

Results

The main design was a single factor multivariate design. The independent variable was a two-level factor - subject (juvenile offender or juvenile nonoffender). The dependent variables consisted of five scores (ETAS, EDIS, ITAS, IDIS and DAQ). A third group, adult offenders was used in the discriminant analysis.

A multivariate analysis of variance and a discriminant function analysis were the main analyses used in the research project. The assumption of normality was satisfied by checking the symmetries of each distribution curve and the dispersion of the scores around the means of each cell

(skewness and kurtosis). Skewness and kurtosis values are listed in Table 1. The three measures of central tendancy within each cell also appeared to be similar - another indication of normality.

Insert Table 1 about here

A visual inspection of bivariate plots of all the variables indicate that there was not any substantial deviation from linearity. Correlations and two-tailed significance values are listed in Table 2.

Insert Table 2 about here

Box's M test was done for homogeneity of variance. This test proved to be significant with $\underline{F}(15,28409)=1.963$, $\underline{p}<.05$. MANOVA tends to be robust when this assumption is violated, especially if there is an equal number of subjects in each group (Tabachnick & Fidell, 1983); therefore, it was decided to proceed with the analysis.

To ensure that the sequence of questionnaire administration did not have any effect on the results, a repeated measures MANOVA was done on the data. All checks proved to be nonsignificant at the .05 level except for the offenders' scores on the EDIS scale.

These results are listed in Table 3. See Table 4 for

Insert Table 3 about here

means on the EDIS and IDIS scales according to sequence of questionnaire administration. These results indicated that the sequence had no major effect on the responses except for the EDIS scale. However, a visual inspection of the group

Insert Table 4 about here

means suggests that there was a bigger difference in the offenders' mean scores in reference to sequence than the nonoffenders.

A between-subjects multivariate analysis of variance was performed on the data. This analysis yielded a significant difference between the groups. Using the Wilke's Lambda multivariate test, the result was an approximate $\underline{F}(5,80)=11.94386,\ p<.01.$ Univariate \underline{F} -tests indicated that the differences between the groups were significant at the .05 level on all of the dependent variables except the EDIS and the DAQ. Variable means and \underline{F} statistics are listed in Table 5.

Insert Table 5 about here

A two-way ANOVA was performed in order to determine for which group the discrepancy between the mean EDIS scores and the mean IDIS scores was greater.

Insert Figure 1 about here

A significant interaction resulted with $\underline{F}(1,84)=21.46$, $\underline{p}<.01$. The simple effects for DIS were then checked, and the results were as follows: nonoffenders $-\underline{F}(1,84)=20.73$, $\underline{p}<.01$; offenders $-\underline{F}(1,84)=4.00$, $\underline{p}<.05$. These results indicated that the discrepancy between the EDIS and IDIS scales was largest in the nonoffender population.

An exploratory discriminant function analysis was performed on the data in order to determine if group membership can be predicted from the Sensation seeking and DAQ scores. The juvenile offender and nonoffender groups were used in the calculation of the equation. Standardized canonical discriminant function coefficients are listed in Table 6 and correctly classified 82.56% of the cases

Insert Table 6 about here

(juvenile offenders and nonoffenders); furthermore, 81.3% of the adult offender population were correctly classified. The Group Classification table is listed in Table 7.

Insert Table 7 about here

Discussion

Research hypothesis (a) is that the juvenile offender group would score higher on DIS scales of the SSS and was not supported. Hypothesis (b) states that the offenders would score significantly lower on the DAQ scale, and this was not supported. Hypothesis (c) predicted that the discrepancy between the mean Experience subscale scores and the mean Intention subscale scores would be significantly greater for offenders as compared to nonoffenders and was not supported. The exploratory discriminant function analysis was successful in predicting group membership in both the juvenile and adult groups. The equation placed the juveniles in their correct group about 83% of the time, and the adults about 81% of the time.

In examining the data for possible explanations for these unexpected results, one confounding factor may have

been the environment in which the offenders were at the time of the questionnaire administration. They were incarcerated at the time and their behaviors were being closely observed. Because the DIS scale reflects one's experience of having engaged or intentions to engage in different kinds of activities, most of which revolve around sex, drugs, drinking, or doing illegal or dangerous things without regard for possible consequences, the offenders may have felt inhibited from being totally honest in answering the questions on the SSS. Despite the fact subjects were assured that staff would not see their questionnaires, the offenders may have felt safer to answer "good" on the SSS It should be noted that the offenders' scores questionnaire. were lower on the IDIS than on the EDIS, which would indicate that their intentions are to engage in less of the behaviors indicated on the DIS scale. This, once again, may have been their efforts to present a "favorable" picture of themselves. On the other hand, the offenders may have answered honestly; therefore, the lower scores on the IDIS compared to the EDIS may indicate that the offenders no longer wish to engage in some of those behaviors in which they had previously engaged.

One further observation of the DIS data was the difference in the offender group on the EDIS scale when sequence of the questionnaire administration was taken into account. In looking at the means of the EDIS and IDIS scales

according to questionnaire administration sequence for both offenders and nonoffenders, both groups' scores on both scales were lower when the DAQ was given first. The mean scores of the nonoffenders were lowered only by a few points, whereas the mean scores of the offenders were lowered by at least twelve points. One possible explanation for these results may have been in the nature of the DAQ. The DAQ was intended to focus directly on personal data, such as educational goals, criminal history, satisfaction in school, job, and life in general. The offenders' reflections on these areas may have affected their responses on the SSS.

As was discussed earlier, the juvenile offenders took approximately 15 minutes longer to complete the questionnaires, than the nonoffenders. Cronbach's <u>alpha</u> was done on the data as an internal reliabilities check to rule out any test taking problems. The DAQ had low reliabilities on both sections, and the offenders proved to be considerable lower than the nonoffenders on both of these sections as well as the ETAS of the SSS. See Table 8 for alpha statistics.

Insert Table 8 about here

As the discriminant function analysis indicated, the data provided correct prediction of group membership in approximately 83% of the cases of the juveniles. When the

equation was applied to the data of adult offenders, approximately 81% of the cases were correctly classified. This cross validation indicates that the results for the adult population are similar to those results for the juvenile offenders. The percentage of correct prediction leaves room for error about 20% of the time; therefore, these questionnaires should be used cautiously in placing individuals in "groups". It may be possible and helpful to use these questionnaires to identify a population at high risk to become involved in unlawful activity.

An exploratory analysis was conducted in reference to the offenders' and the nonoffenders' satsifactions with school, jobs, and life in general. The DAQ contained three self-report questions focusing on these areas of satisfaction - school (DAQ9), jobs (DAQ10), and life in general (DAQ12). This analysis incorporated the following variables: EDIS, IDIS, DAQ, DAQ9, DAQ10, and DAQ12. As can be seen by the means and the <u>F</u> statistics in Table 9, the offenders scored significantly lower in self-reported satisfaction on two levels - job and life in general - than the nonoffenders.

Insert Table 9 about here

The satisfaction score for school did not indicate a significant difference between the groups. When these three

variables were added to the exploratory discriminant function analysis, (which no longer included the ITAS and ETAS variables) the percentage of juvenile offender and nonoffender cases which were correctly classified increased to 88.4%. The percentage of adult offender cases correctly classified remained 81.3%. See Table 10 for the discriminant function analysis results.

Insert Table 10 about here

This exploratory research may provide support for the research by Hirschi (1969) cited earlier in reference to leisure time. The more important factor in Hirschi's research was to fill the adolescent's time with something they wanted to do - something satisfying. In the present research the offenders reported less satisfaction with jobs and life in general more often than the nonoffenders. This finding appears to provide support for the underlying assumption of the present research - the ablity to structure one's activities so that the maximum satisfaction is derived, will result in less criminal behavior.

The present study could have been stronger if a group of adult nonoffenders could have been obtained, so that direct comparisons of data of adult offenders and nonoffenders could have been made. Another factor, which may have confounded

the results of this study, was the environment of the offenders. The offender populations (juvenile and adult) were incarcerated at the time of questionnaire administration. The fact they were incarcerated and that many privileges are conditional on good behavior, may have affected their responses on the questionnaires. population would need to be obtained in a different manner, one such that they were not under the reigns of the judicial system at the time of questionnaire administration. One way to accomplish this would be through the use of a self-report questionnaire, such as the DAQ, where the question of criminal history is asked. The drawback of this approach is that the researcher must depend on the honesty of the subjects in accurately admitting past criminal activity. Also, in order to determine that these results are specific to the age range of 15 to 30 years, a group of past offenders beyond the age range of 15 to 30 years would need to be obtained. Their responses on the questionnaires would then need to be compared to offenders within the age range of 15 to 30 years.

The results of this study warrant follow-up research in this area. To determine if the underlying assumption (that ability to structure activities to derive maximum satisfaction results in less criminal behavior) has any value, a longitudinal study would have to be developed. This

study could be incorporated into the school system by developing a part of the curriculum to revolve around the structuring of satisfying daily activities and making it a requirement for each student. A baseline statistic would have to be obtained prior to the implementation of the daily activities curriculum in order to determine the percentage of students from that school who had become involved in criminal behavior within the age range of 15 to 30 years. Subsequent to the implementation of the daily activities curriculum those students would have to be tracked through the crucial age range of 15 to 30 years to determine the effectiveness of the training.

In summary, the age range of 15 to 30 years accounts for a large percentage of the crime rate. The question to be answered was, "Why?". This study concludes that during that age range, or at least up to age 18, offenders tend to score lower on the IDIS and TAS scales, than the nonoffenders, and there is no significant difference in their scores on the EDIS and DAQ. This means that the offenders and the nonoffenders have participated in items on the EDIS scale, which revolve around sex, drugs, drinking, or doing illegal or dangerous things without regard for possible consequences at about the same rate; however, the nonoffenders plan to engage in more of such behaviors in the future than the offenders. The nonoffenders and the offenders also tend to

have participated in similar amounts of structured daily activities; however, the offenders report less satisfaction with their jobs and lives in general. In order to determine if these results are age specific, further research is needed.

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Table 1 Checks for Normality - Skewness and Kurtosis GROUP 1 (NONOFFENDERS)

<u>Scale</u>	Skewness / S	SE Skewness	<pre>Kurtosis / SE Kurtosis</pre>
ETAS	.335/.361	= .928	723/.709 = -1.02
ITAS	418/.361	= -1.158	782/.709 = -1.103
EDIS	.086/.361	= .238	514/.709 =725
IDIS	.035/ 361	= .097	119/.709 =168
DAQ	402/.361	= -1.114	101/.709 =142
		GROUP 2 (OFF)	ENDERS)

<u>Scale</u>	Skewness / SE Skewness	Kurtosis / SE Kurtosis
ETAS	.791/.361 = 2.19	.006/.709 = .008
ITAS	.654/.361 = 1.812	.035/.709 = .049
EDIS	501/.361 = -1.388	293/.709 =413
IDIS	279/.361 =773	894/.709 = -1.261
DAQ	.662/.361 = 1.834	179/.709 =253

Note. Skewness was significant only on the ETAS scale in the Offender group.

Table 2

Correlations and 2-tailed Significance Values

Scale	Correlation	2-tailed Significance
ETAS/DAQ	.11	.27
ETAS/ITAS	.58	.00
ETAS/EDIS	.52	.00
ETAS/IDIS	. 4 4	.00
ITAS/DAQ	.16	.12
ITAS/EDIS	. 44	.00
ITAS/IDIS	.48	.00
EDIS/DAQ	01	.91
EDIS/IDIS	.62	.00
IDIS/DAQ	.05	.60

Table 3

Repeated Measures - Looking at Sequence Differences

		GROUP 1 (NONOFFENDERS)	
ETAS	F(1,41)	= .86, $P = .359$ ($P > .05$)	
ITAS	F(1,41)	= 2.09, P = .156 (P > .05)	
EDIS	F(1,41)	= .60, $P = .443$ ($P > .05$)	
IDIS	F(1,41)	= .06, P = .800 (P > .05)	
DAQ	F(1,41)	= .00, P = .996 (P > .05)	
		GROUP 2 (OFFENDERS)	
ETAS	F(1,41)	= 3.37, P = .074 (P > .05)	
ITAS	F(1,41)	= .40, P = .531 (P > .05)	
EDIS	F(1,41)	= 8.43, P = .006 (P < .05)	
IDIS	F(1,41)	= 3.52, P = .068 (P > .05)	
DAQ	F(1,41)	= 1.07, P = .307 (P > .05)	

Note. The only significant F statistic is on the EDIS scale for the offenders.

Table 4

Means for EDIS and IDIS According to Sequence of Questionnaire Administration

GROUP		SEQU	E N C	Е	
	SSS-I	DAQ		DAQ-S	SSS
	EDIS	IDIS		EDIS	IDIS
OFFENDERS	94.86	90.10		79.00	77.79
NONOFFENDERS	88.59	95.64		85.09	94.52

Table 5

Group Means and Univariate F-tests With (1,84) D. F.

VARIABLE	<u>M1</u>		
	Nonoffender	Offender	F Statistic
Probability			
ETAS 23.047	19.512	14.259	.000
ITAS 42.186	34.465	14.515	.000
EDIS 86.884	89.698	.620	.433
IDIS 95.093	86.093	5.514	.021
DAQ 11.093	9.907	2.999	.087

Table 6
Standardized Canonical Discriminant Function Coefficients

VARIABLE	FUNCTION 1
ETAS	0.68241
ITAS	0.36402
EDIS	-1.42312
IDIS	0.98315
DAQ	0.30341

Table 7

<u>Classifications Table Resulting From Discriminant</u>

<u>Function Analysis</u>

ACTUAL GROUP	# OF CASES	PREDICTED GROUP	MEMBERSHIP	
		NONOFFENDER	OFFENDER	
NONOFFENDER	43	31	12	
		72.1%	27.9%	
OFFENDER	43	3	40	
		7.0%	93.0%	
Total of correctly classified cases 82.56%				
ADULT OFFENDER	R 16	3	13	
		18.8%	81.3%	

Table 8

Cronbach's Alpha - Reliability Analysis

	Nonoffenders	Offenders
DAQ(Activities)	.406	.243
DAQ(Satisfaction)	.529	.400
ETAS	.733	.640
ITAS	.889	.870
EDIS	.900	.930
ITAS	.901	.944

Table 9

Group Means and Univariate F-tests With (1,84) D. F. For the Satisfaction Variables

VARIABL	E MEA	<u>ns</u>		
	Nonoffender	Offender	F Statistic	Probability
DAQ9	.442	.186	1.38852	.242
DAQ10	.419	.000	5.23385	.025
DAQ12	1.070	930	64.74198	.000
Wilk's	Lambda F(6,	79)=15.888	94, p < .01	

Table 10

Classifications Table Resulting From Discriminant

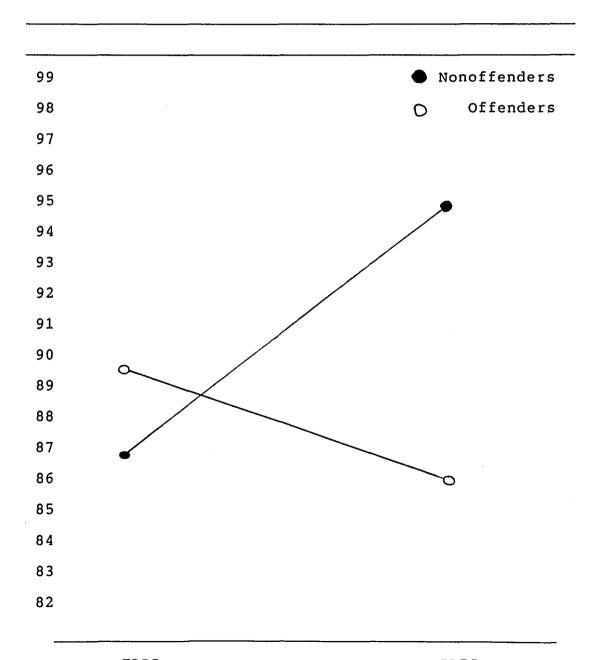
Function Analysis (EDIS, IDIS, DAQ, DAQ9, DAQ10, DAQ12)

ACTUAL GROUP	# OF CASES	PREDICTED GROUP	MEMBERSHIP
		NONOFFENDER	OFFENDER
NONOFFENDER	43	41	2
		95.3%	4.7%
OFFENDER	43	8	35
		18.6%	81.4%
Total of correc	ctly classifie	ed cases 88.4%	
ADULT OFFENDER	16	3	13
		18.8%	81.3%

Note. The total percentage of correctly classified cases increased; however, that increase occurred mainly in the nonoffender group. The offender group's percentage of correctly classified cases actually decreased.

Figure 1

Differences in Disinhibition Scores (Experience and Intention) between offenders and nonoffenders.



INFORMED CONSENT

This is to inform you about your participation in a research project which I am doing for my thesis. project consists of completing two (2) questionnaires which are estimated to take about a total of thirty (30) minutes to finish. The questionnaires consist of questions about you and things that you have done and things that you like to do. The only risks and/or discomforts that are anticipated to occur in relation to this project, is in answering some questions which you may feel are personal in nature. I would like to assure you that no one will see your answers on these questionnaires except me and possibly the teachers who are helping me with my thesis. In addition to this, my project will compare the answers that you and others in this setting give to answers that a group of people in a different setting give; therefore, knowing precisely how each of you answer each question is not of importance for this project. It is very important to the results of my research that you are as honest as possible and that you answer all of the questions.

Aside from signing this please do not put your name or any identifying marks on any of the papers which I give you - this is to help assure each of you annonymity. I promise that you will not be identified in any way as a

result of this research. I would also like to assure you that the answers which you provide on these questionnaires will not be used for any other purposes except for my thesis.

I cannot tell you the precise nature of the project right now, but I will be glad to inform each of you of this after the questionnaires have been completed. If you have any questions aside from this, please feel free to ask me before the questionnaires are handed out. If at any time during the administration of the questionnaires you feel that you do not want to continue, that is fine. You may discontinue participating in the project without any hard feelings from me.

I have read the previous page and have had an opportunity to ask questions about my participation in the project. The description of the study identified any discomforts or risks I might expect during and/or after the project. I understand that my identity will be kept confidential. My participation is entirely voluntary and should I decide at any time during the project to end my participation I am free to do so.

- () I agree to participate in the project conducted by Becky Fulper a graduate student at the University of Richmond.
- () I do not wish to participate in the project

DATE Signature of Participant

If participant is under 18 years of age the responsible adult should sign below.

Signature of Responsible Adult

The Daily Activities Questionnaire (DAQ) was developed to provide a checklist of the various activities in which one engages. There are actually two sections of the DAQ. The first section focuses on activities in which one participates, or has participated both in school and aside from school. The second section focuses on one's satisfaction in school, on the job, and in life in general. The items that were chosen are general in nature and can be answered by anyone. This questionnaire provides a guide for one to report any and all activities in which he/she has engaged.

DAILY ACTIVITIES QUESTIONNAIRE

Following is a questionnaire which I would like for you to complete. Please do not put your name or any identifying marks on this questionnaire in order to ensure your annonymity. The results will be used for research purposes only. No one will see these questionnaires except the researchers.

Because of the nature of the study, it is very important that you be completely honest in your answers. Please begin.

Age	Race
Please check the highest grade	in school which you have
completed:	
8th grade or lower	1 year of college
9th grade	2 years of college
10th grade	3 years of college
11th grade	4 years of college
12th grade	5 years or more
Diploma?GED?	Undergrad. Degree?
Vocational Certificate?	Graduate Degree?
If you are still in school, ch	eck your educational goals?
High School Diploma? GED?	Voc. School?
Military? Bachelor Degree	? Grad. Degree?
*(Score 1 point for each blank	checked except for the
grade level blanks.)	

If presently in school, please circle the activities in which you participate, or if not presently in school, circle activities in which you participated when you were in school:

Team Sports		Miscellaneous	School Clubs/Org.	
Football	Tennis	Concert Band	Beta	English
Baseball	Swimming	Marching Band	FHA	Math
Basketball	Wrestling	Color Guard	FFA	Science
Track	Soccer	Cheerleading	FBLA	History
Other		Gymnastics	Foreign	Language
Other		Other	Other	
Other		Other	Other	
*(Score 1 point for each item circled)				
Aside from school related activities, are you actively				
involved in:				
Any clubs or organizations?				
If yes, how many?				
Any hobbies or special interest groups?				
If yes, how many?				
Any organized sports?				
If yes, how many?				
Going to church?				
If yes, how often?				
*(Score 1 p	oint for e	each "Yes"; othe	rwise 0	points)

When you were growing up, how often did your family (parents & brothers/sisters) engage in family activities together within a year (movies, out to dinner, trips, family reunions, sports, etc.)? Please circle answer. Parentheses indicate number of times.

Never (0) Not very much (1 - 2) Sometimes (3 - 4)
 Often (5 - 7) Very Often (8 - up)
*(Scoring is as follows: "Never" = 0;
"Not very much" = 1; "Sometimes" = 2; "Often" = 3;
"Very often" = 4)

Are you presently in school?_____

How much do or did you like school? Circle Answer

Not at all A little Okay Pretty much Very much

Are you presently employed?

How much do you like your job? Circle Answer

Not at all A little Okay Pretty much Very much

*(Scoring is as follows: "Not at all" = -2;

"A little" = -1; "Okay" = 0; "Pretty much" = +1;

"Very much" = +2)

Have you ever done something that was not really legal,

for which you were not caught? Yes____ No___

*(Score 0 points regardless of answer)

If so, how many convictions?____

Have you ever been convicted of a crime?

*(Score 0 points regardless of answer)

Have you ever been convicted of a violent crime?

Please list any offenses of which you have been convicted:

^{*(}Score 0 points regardless of answer.)

How much do you like the way your life is going at the present time? Circle Answer

Not at all A little Okay Pretty much Very much *(Score on the same scale, -2 to +2, as above.)

THANK YOU FOR YOUR COOPERATION!!

Biography

Rebecca Fulper was born in Trenton, New Jersey, on April 5, 1959, and she was raised in Booneville,
Mississippi. She graduated from Booneville High School in May 1977, and pursued a secondary education immediately after at Mississippi State University in Starkville, Mississippi. Rebecca obtained her Bachelor of Arts degree from Mississippi State University in August of 1981, and her major was psychology. She then worked in the psychology area until 1984, when she was accepted into the Psychology Graduate School at the University of Richmond in Richmond, Virginia. She completed the requirements for her Master of Arts degree in 1988.