1995 Abstracts

- **The Effect of Crime and Criminal Images on Perceptions of Harm and Sanction Preference**

  Dan Roberts/ (Dr. Ray Barrow)

  American criminal laws are primarily directed at the deviant behavior of the lower socioeconomic class while the behaviors of elites, that are equally or more harmful to society, are generally undefined as crime. The skewed criminal justice system results from: 1) the interorganizational nature of capitalism, providing elites with the means to influence the content and character of criminal law, and 2) images of the typical criminal, as molded and projected by elite controlled media. This is an empirical study utilizing a quasi-exerimental design to determine if images commonly associated with crime and criminals influence society's perception of harm and sanction preference.

- **Transepithelial Molecular Transport of L-Leucine by Gut Segments of the Black Bass, Micropterus salmoides**

  Kevin E. Jones/ (Dr. George Schulte)

  1. This work undertakes preliminary studies necessary to complete comprehensive tissue accumulation experiments (i.e. pilot competitive inhibition study, comprehensive temperature study, and comprehensive geography study).
  2. Competitive inhiition study suggests the presence of a protein carrier for L-leucine in the gut of a black bass.
  3. Differences in the uptake of L-leucine exist along the length of the black bass gut.
  4. The middle 1/5 of the black bass gut displays the most abundant uptake of L-leucine.
  5. Temperatures between 25°C and 30°C display optimal uptake of L-leucine.

- **The Effects of Oak Savannah Restoration upon the Nesting Behavior of Peromyscus leucopus**

  Michael Dean Pettit/ (Dr. Scott Ellis)

  This study compared the population density, nest site usage and home range size of White-footed Mice (Peromyscus leucopus) by live-trapping and radio telemetry. The study was conducted in an area undergoing the restoration of an oak savannah. I used a trapping web to estimate population density and miniature radio collars to locate nest sites. Home range size was determined from results from both of these methods. More mice were found to use the restoration area than the undisturbed forest, and mice used more nest sites in the restoration area than in the undisturbed forest.

- **Grassroots Political Organization and Voter Turnout: A Study of Chicago Urban Precincts**

  Keisha J. Farmer/ (Dr. John Ishiyama)

  The relationship between organization and voter mobilization is relevant to today's political scientist and to modern day society as a whole. Some current studies imply that organization of the voter by localized political parties will increase voter mobilization. None of them, however, consider the impact of non-partisan organizations upon voter turnout within their respective communities. This is surprising, given the recent surge in the number of "grass-roots" organizations, especially in urban areas, where organizations have taken upon themselves the goal of increasing voter registration and participation. Using quasi-experimental technique, this study shall accomplish the following objectives: To "fill in" the gaps in the literature by investigating the theoretical impact of such grass roots organizations n voter turnout, to test the probability that the increased activity of grassroots organizations will result in a comparably higher voter turnout.

- **Family Functioning and Academic Achievement Among Elementary School Children**

  Julie Seeley/ (Dr. Lou Ann Gilchrist)

  A review of the current literature indicates the importance of understanding relationships among family variables and academic achievement. This correlational study compares elementary students' academic achievement with results from an instrument by which families rate their own familial relationships and functioning. The Missouri Mastery Achievement Test (MMAT) scores were used for academic achievement and results from the Family Adaptability and Cohesion Evaluations scales (FACES II) were used to measure family functioning. This research focuses on factors leading to high academic achievement and positive effects of families. The sample is composed of thirty-six families with at least one student in second, third, fourth, or fifth grade. Pearson Correlation Coefficients were used to determine that no statistically significant relationships among variables were present.

- **Internalized Feelings of Inferiority: How They Affect Academic Performance**

  Chammie C. Austin/ (Dr. Christopher Maglio)

  This paper attempts to clarify the role internalized inferiority plays in affecting academic performance. The concept of internalized feelings of inferiority has received extensive research but minimal research has been conducted on how internalized feelings affect academic performance. Key concepts of cognitive therapy are used to address these issues and increase academic performance. The results showed no significant difference in the group means over time. Factors affecting the observed results are also discussed.

- **The Effects of Child Intent and Parent Gender on Judgments about Physical Abuse**

  Angela Baum

  Subjects read a scenario in which a child either accidentally or deliberately broke a priceless clock while disobeying either his mother or his father and the parent punished the child for this disobedience by slapping him hard across the face. After reading the scenario, subjects responded to questions assessing their perceptions of the appropriateness and the severity of the punishment. Overall, subjects rated the parent's behavior more favorably when the child acted intentionally but significantly more abusive when the child broke the clock accidentally. Communication was viewed as a factor in the child's behavior significantly more when the punishing parent was the mother rather than the father. Subject gender had no effect on ratings.

- **The Evaluation of Neural Toxicity in Two Anti-Tumor Drugs**

  Tracey Borman/ (Dr. Cynthia Cooper)

  The impact of two anti-tumor drugs, methylglyoxal bisquanylhydrazone (MGBG) and alpha-

difluoromethylornithine (DFMO), on cytosolic calcium was studied in rat pheochromocytoma (PC12) tumor cells. Cells were treated with 1.0 mM DFMO and 0.5mM MGBG over a three day period. Calcium concentrations were measured by the relative flourescence intensity of the cells as determined by a spectrophotofluorometer. Fluorescence was obtained by loading the cells with the molecular probe Fura-2/AM. Inhibitor treated cells had a mean relative cytosolic calcium concentration of 104.8 uM. Uninhibited cells had a mean of less than half that concentration: 47.7 uM calcium.

- **The 'Competitive Exclusion' Model on the Anemonefish: Is It a Factor in Imprinting?**

Beth Sailors/ (Dr. Nancy Sanders)

Imprinting and the 'competitive exclusion' model were examined using Amphiprion clarkii anemonefish and Heteractis malu anemones. Fourteen different anemones and ten different anemonefish were used in the study. A single anemonefish was placed in a glass aquarium with first one anemone, then secondly with a second anemone. After acclimating to both anemones separately, the fish was then placed in a tank with both anemones and allowed to choose which anemone to reacclimate to. The anemone chosen by each anemonefish and the reacclimation time were recorded. Six anemonefish chose the second anemone over the first anemone. Statistical analysis (t-test) sowed that the reacclimation times for anemonefish that chose the first anemone were significantly shorter than for the fish that chose the second anemone. The results indicate that the 'competitive exclusion' model may be a factor for imprinting in anemonefish and anemones.