Kentucky Department of Public Advocacy

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Are Our Hands Tied Behind Our Back in Drug Cases?

Mental Health Forum: Blume & Drogin respond to Smith

***The Comprehensive Textbook of Psychiatry VI*: A Review by Dr. Ruth**

The Advocate

The mission of *The Advocate* is to provide education and research for persons serving indigent clients in order to improve client representation, fair process and reliable results for those whose life or liberty is at risk. *The Advocate* educates criminal justice professionals and the public on its work, its mission, and its values.

The Advocate is a bimonthly (January, March, May, July, September, November) publication of the Department of Public Advocacy, an independent agency within the Public Protection and Regulation Cabinet. Opinions expressed in articles are those of the authors and do not necessarily represent the views of DPA. *The Advocate* welcomes correspondence on subjects covered by it. If you have an article our readers will find of interest, type a short outline or general description and send it to the Editor.

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Who Needs Teamwork?

It's hard to work in groups when you're omnipotent.

- Star Trek
The Next Generation

FROM THE EDITOR:

A New Look. Our type size for articles has increased. We have changed from three to two columns for our articles. Our cover is more sturdy. Let us know what you think of these changes.

Drugs. Albert Kreiger, one of the nation's prominent criminal defense lawyers, has indicted us all when he observed, *"The kilos have a law of their own."* Do courts rule differently in drug cases, or do we defenders just feel they do? Do we advocate differently in drug cases with different legal rulings resulting? Do the public and jurors see these cases as different from other offenses? In this issue, we focus on the many, the difficult, the complex drug cases so we can better insure our advocacy is as vigorous, zealous, and competent for our drug clients as it is for all our clients. We know that good lawyering does make a difference, especially in the challenging cases. If someone asks you if your hands are tied behind you in drug cases, *just say no* ...and hand them all the creative thoughts in this issue. We hope to do a second edition of this special drug issue. If you have an area you would like to contribute to the second edition, please let us know.

Mental Health. *John Blume* and *Eric Drogin, Ph.D.* respond to *Harwell Smith, Ph.D.'s* critique of Blume's article on the components of a competent mental health expert. We invite further dialogue on this critical issue. Are the mental health evaluations being done in Kentucky criminal cases competent?

Ethics. Executive Branch Ethics face state employees evermore. We continue our series on this increasingly significant area.

Salaries Lag Behind Average. For 4 years Kentucky defenders have been paid less than comparable assistant attorney generals. Why? Public defender starting salaries were just raised to be equal to those in the Attorney General's office, yet defender salaries still are as much as $5,000 below the *average* of defender salaries in the 7 surrounding states! Why?

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☞ IN THIS ISSUE ☜

DRUG ARTICLES

MENTAL HEALTH FORUM

♦ *Mental Health Dialogue*

Who is Winning the War on Drugs?

Nature and Extent of the Drug Problem

The nature and extent of the drug problem in America is well documented. When President Clinton presented his *1994 National Drug Control Strategy: Reclaiming Our Communities From Drugs and Violence* to the Congress in February 1994, he stated:

> How we address the drug problem says much about us as a people. Drug use and its devastation extend beyond the user to endanger whole families and communities. Drug use puts our entire nation at risk. Our response must be as encompassing as the problem. We must prevent drug use by working to eliminate the availability illicit drugs; treating those who fall prey to addiction; and preventing all our citizens, especially our children, from experimenting in the first place. This is the plan we offer to all Americans.

Lee P. Brown, Director of the Office of National Drug Control Policy, stated in the *1993 Interim National Drug Control Strategy*:

> Drugs continue to break apart society. No parent addicted to drugs or alcohol can adequately care for a child. No child so afflicted can adequately learn in school. No street is safe where drugs predominate. No effort in housing or employment or education or public safety will fully succeed until the target populations are free of drug and alcohol addiction.

Nationally: 67% of Arrests

The Bureau of Justice Statistics 1991 *Sourcebook of Criminal Justice Statistics* indicates in an analysis of drug use by arrestees in 21 major U.S. cities that 67 percent tested positive for some type of drug. These drugs included cocaine, opiates, marihuana, phencyclidine (PCP), methadone, benzodiazepine (Valium), methaqualone (Quaalude), propoxyphene (Darvon), barbiturates, and amphetamines. Alcohol was not mentioned.

Kentucky: 45% of Arrests

In Kentucky from 1987 to 1993 *Crime in Kentucky* statistical reports published by the State Police indicated that the number of persons arrested for narcotic drug offenses increased by 88 percent. The average increase for each year was 15 percent. (See Graph 1).

Alcohol is often overlooked in the war on drugs. Alcohol abuse and addiction is a very serious problem in Kentucky. Examination of the State Police's *1993 Crime in Kentucky* report reveals a fact which deserves significant attention from the criminal justice community. By adding 1993 arrests for drunkenness (41,504), driving under the influence (36,394), liquor laws (3,738) and narcotic drugs (17,349), it is found that 100,978 or 45 percent of all arrests (225,989) for Part II Crimes in Kentucky were for drug and alcohol offenses.

The Crisis in Prisons and Jails

It has become clear that the War on Drugs with its funding emphasis on law enforcement without concomitant funding emphasis on treatment and defense of indigents has created alarming problems for jails and prisons. Discussing his crime bill in a recent news conference President Clinton stated, "We cannot jail our way out of this problem," when asked why he was proposing significant increases in funding for drug treatment and prevention.

Since 1975, the prison population of the United States has more that tripled. This phenomenon has created a funding crisis for federal, state and local governments. The costs of jails and prisons is more than taxpayers can bear. Kentucky Department of Corrections data indicate that the cost of keeping a person in jail or prison for a year is $13,613.30.

The Department of Corrections annual *Profile of Institutional Population* reports show that Kentucky's prison population has nearly doubled in the past six years, rising from 5,221 in 1987 to 10,109 residents in 1993. (See Graph 2). The Department of Corrections' data further indicate that the number of drug offenders

committed to Kentucky's prisons has more than quadrupled in the past six years, increasing from 285 in 1987 to 1,452 in 1993 (See Graph 3). The 1,452 residents incarcerated for drug offenses make up 14 percent of Kentucky's total prison population.

The number of state prisoners committed to serve prison sentences in Kentucky's county jails continues to be a serious problem for the criminal justice system. Every year since 1991 the county jails have experienced and increase in the number of state prisoners housed. (See Graph 4). In 1991 there were 1,129 state prisoners residing in county jails. In 1994, the number rose to 1,532, representing a 36% increase over a three year period. Particularly significant with regard to these state prisoners serving time in county jails is the fact that each year the percentage of violent and drug offenders remained at or slightly over 50%.

On July 31, 1994 an editorial in the *Louisville Courier Journal* revealed that the Jefferson County Jailer was forced to release prisoners prior to the expiration of their sentences due to Federal Law on prison overcrowding. This is occurring in spite of the fact that one fifth of the Jefferson County Government's budget is spent on corrections.

Problems Associated with Multiple Defendant Drug Cases

The increases in arrests for drug offenses in Kentucky from 9,213 in 1987 to 17,349 in 1993 has placed a severe strain on the resources of the public defender system. This is especially true in multiple defendant drug cases resulting from drug sweeps by the police in numerous counties.

Kentucky State Police officials indicate that they conduct as many as twelve drug sweeps per year. The number of people arrested in any given sweep depends upon the size and population of the jurisdiction in which the sweep is made. The number of arrestees usually ranges between 12 and 50. In one statewide drug sweep the Kentucky State Police arrested 687 people.

Case law has clearly established that in a situation in which there are multiple defendants one attorney cannot represent more than one client where there is a conflict of interest or even a potential conflict of interest. In some situations the attorney who makes the initial contact with multiple defendants in a multiple defendant case may not be able to represent any of them due to multiple conflicts.

The DPA provides constitutionally mandated criminal defense services throughout the Commonwealth. In these counties where drug sweeps occur an inordinate amount of defender resources are used in multiple defendant drug cases. Funds are not sufficient to provide legal representation through outside counsel to handle the cases in conflict situations caused by multiple defendant drug sweeps. When dealing with multiple defendants, locating conflict attorneys using existing resources is a problem that results in considerable delay in processing these cases in court.

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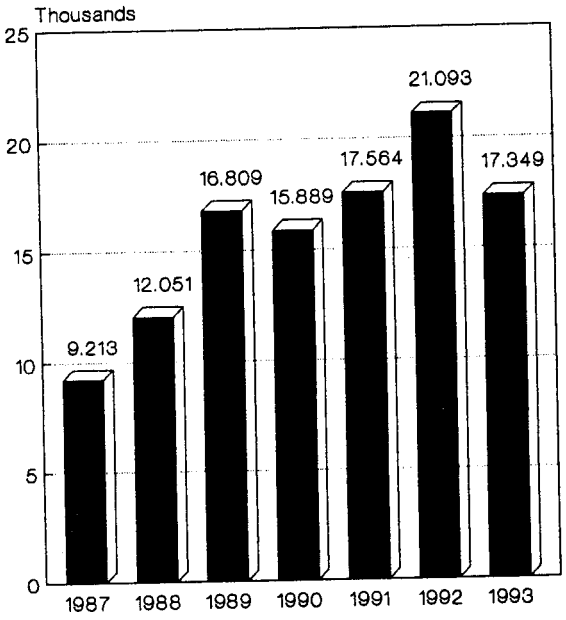
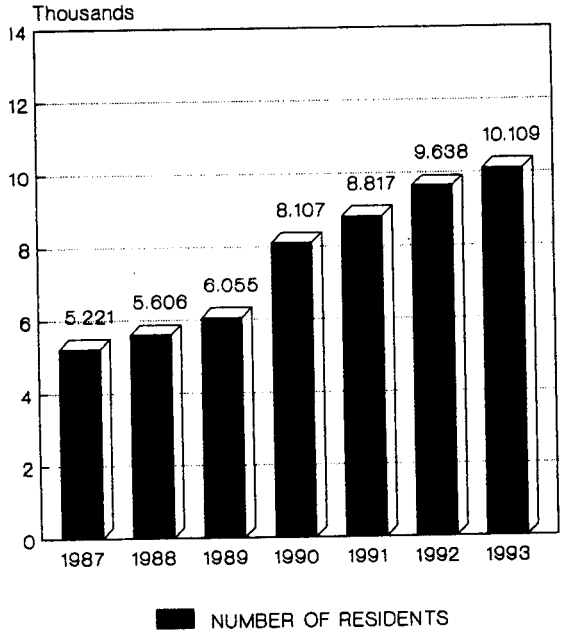
> No human being is constituted to know the truth, the whole truth, and nothing but the truth; and even the best of men must be content with fragments, with partial glimpses, never the full fruition...
>
> - William Osler

DRUG ARRESTS
IN KENTUCKY



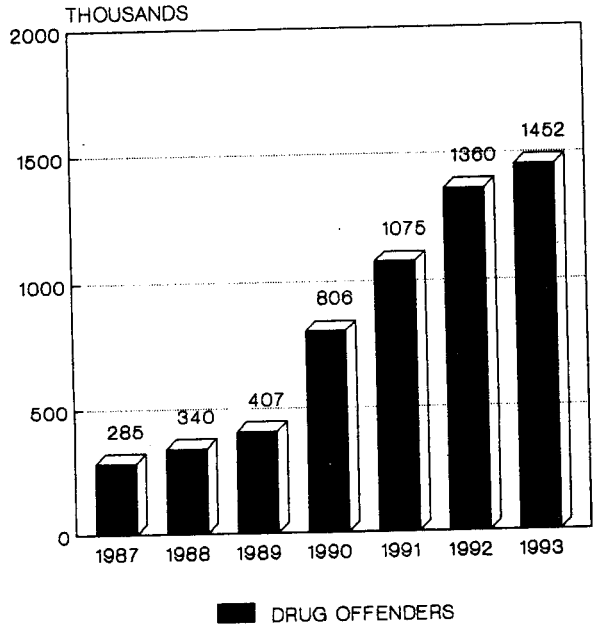
Graph 1

KENTUCKY PRISON
POPULATION



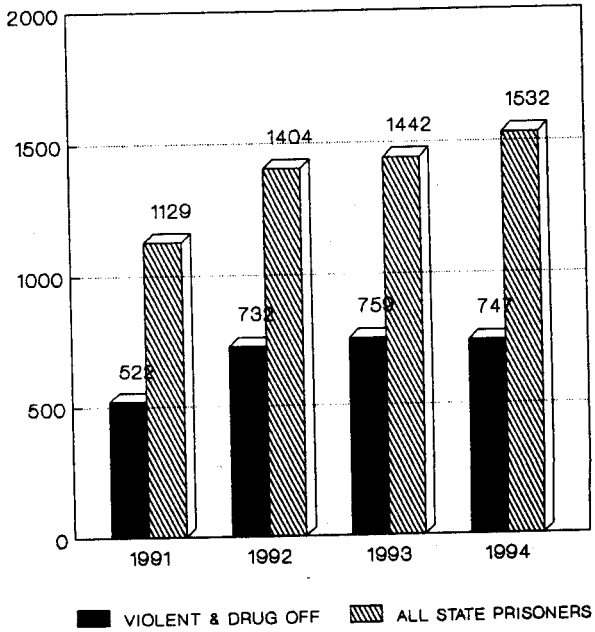
Graph 2

DRUG OFFENDERS
IN KY STATE PRISONS



Graph 3

STATE PRISONERS
IN COUNTY JAILS



Graph 4

KRS CHAPTER 218A DRUG CHART

The first Kentucky drug chart appeared in *The Advocate* in October 1983, Vol. 5, No. 6 at 25.

Like each prior Kentucky drug chart, this present drug chart is not designed to replace the statute, but to act as a quick-reference research tool. In this regard, the proscribed conduct is arranged in the following fashion: *trafficking* in controlled substances and conduct relating to trafficking; *possession* of controlled substances; proscribed conduct relating to *marijuana*; and, *miscellaneous* provisions. © Larry H. Marshall

CONDUCT	CONTROLLED SUBSTANCE	PENALTY
Trafficking - 1st° KRS 218A.1412	SCHEDULES I or II [narcotic]; CONTROLLED SUBSTANCE ANALOGUE; LSD; PCP	Class C Felony Class B Felony★
Trafficking - 2nd° KRS 218A.1413(1)(a)	SCHEDULES I or II [*non*-narcotic]; SCHEDULE III; [*not* LSD; *not* PCP; *not* MARIJUANA]	Class D Felony Class C Felony★
Prescribe, order, distribute, supply or sell anabolic steroid for a. enhancing performance in sport; or b. hormonal manipulation in the human species without medical necessity KRS 218A.1413(1)(b)	ANABOLIC STEROID	Class D Felony Class C Felony★
Trafficking - 3rd° KRS 218A.1414	SCHEDULES IV or V	Class A Misdemeanor Class D Felony★
Sells or Transfers to Minor [D 18 or over-V under 18] KRS 218A.1401	CONTROLLED SUBSTANCE [Any Quantity]	Class C Felony Class B Felony★ If a more severe penalty for trafficking in controlled substance applicable, then higher penalty shall apply.

★ = Subsequent Offense
+ = Optional Commitment Treatment
D = Defendant
V = Victim

CONDUCT	CONTROLLED SUBSTANCE	PENALTY
Trafficking: In any building used primarily for classroom instruction in a school or On any prmises located within 1,000 yards of any school building used primarily for classroom instruction KRS 218A.1411	SCHEDULES I, II, III, IV, or V or CONTROLLED SUBSTANCE ANALOGUE	Class D Felony If a more severe penalty is set forth in Chapter 218A, then higher penalty shall apply.
Criminal Conspiracy to traffic in a controlled substance or controlled substance analogue KRS 218A.1402	CONTROLLED SUBSTANCE or CONTROLLED SUBSTANCE ANALOGUE	Punished as if trafficked in that controlled substance or controlled substance analogue
KRS 218A.1404(1,3) Violation [trafficking in any controlled substance] KRS 218A.1404(4)	CONTROLLED SUBSTANCE	Unless another specific penalty provided in Chapter 218A Class D Felony Class C Felony★
Use and investment of drug-related income derived from trafficking KRS 218.1405	CONTROLLED SUBSTANCE	Class D Felony & in addition to other penalties proscribed by law shall forfeit property derived from income received from trafficking in controlled substance
Possession - 1st° KRS 218A.1415	SCHEDULES I or II [narcotic]; CONTROLLED SUBSTANCE ANALOGUE; LSD; PCP	Class D Felony Class C Felony★
Possession - 2nd° KRS 218A.1416	SCHEDULES I or II [*non*-narcotic]; SCHEDULE III; [*not* LSD; *not* PCP; *not* MARIJUANA]	Class A Misdemeanor+ Class D Felony★
Possession - 3rd° KRS 218A.1417	SCHEDULES IV or V	Class A Misdemeanor+ Class D Felony★
KRS 218A.1404(2) Violation [possession of any controlled substance] KRS 218A.1404(4)	CONTROLLED SUBSTANCE	Unless another specific penalty provided in Chapter 218A Class A Misdemeanor Class D Felony★

★ = Subsequent Offense + = Optional Commitment Treatment D = Defendant V = Victim

CONDUCT	CONTROLLED SUBSTANCE	PENALTY
Trafficking in Marijuana a. less than 8 oz. b. 8 oz. or more but less than 5 lbs. c. 5 lbs. or more KRS 218A.1421	 MARIJUANA MARIJUANA MARIJUANA	 Class A Misdemeanor Class D Felony★ Class D Felony Class C Felony★ Class C Felony Class B Felony★
Marijuana Cultivation with intent to sell or transfer a. 5 or more plants b. Fewer than 5 plants KRS 218A.1423	 MARIJUANA MARIJUANA	 Class D Felony Class C Felony★ Class A Misdemeanor Class D Felony★
Possession of Marijuana KRS 218A.1422	MARIJUANA	Class A Misdemeanor+
KRS 218A.140(1-2) Violation [False prescriptions; etc.] KRS 218A.140(3)	CONTROLLED SUBSTANCE	Class D Felony Class C Felony★
KRS 218A.350 (1-4) Violation [Simulation] KRS 218A.350(7)		Class A Misdemeanor Class D Felony★
KRS 218A.500(2-4) Violation [Paraphernalia] KRS 218A.500(5)	CONTROLLED SUBSTANCE	Class A Misdemeanor Class D Felony★
Advertising Controlled Substance KRS 218A.1403	CONTROLLED SUBSTANCE	Class B Misdemeanor Class A Misdemeanor★

★ = Subsequent Offense
+ = Optional Commitment Treatment
D = Defendant
V = Victim

CONDUCT	CONTROLLED SUBSTANCE	PENALTY
Prescribed drugs possessed only in original container KRS 218A.210	CONTROLLED SUBSTANCE	Class B Misdemeanor Class A Misdemeanor★
Revocation or Denial of Operator's License D between 14-17; and convicted of a violation of any offense under Chapter 218A; or adjudged delinquent for an act which would be offense under Chapter 218A Has motor vehicle or motorcycle operator's license KRS 218A.991(1)(a-b)		May recommend revocation of license for 1 year May recommend revocation of license for 2 years so long as suggested period of revocation does not extend past D's 18th birthday★
Has no motor vehicle or motorcycle operator's license KRS 218A.991(1)(c)		May recommend no license be issued for 1 year May recommend no license be issued for 2 years so long as suggested period does not extend past D's 18th birthday★

★ = Subsequent Offense
+ = Optional Commitment Treatment
D = Defendant
V = Victim

CONDUCT	CONTROLLED SUBSTANCE	PENALTY
Possession of Firearm D convicted of any Chapter 218A violation *[except a violation of KRS 218A.210]* and was at the time of the commission of the Chapter 218A offense in possession of a firearm and a. The Chapter 218A offense is a felony; or b. The Chapter 218A offense is otherwise a misdemeanor KRS 218A.992 (1-2)		Penalized one (1) class more severely than provided for in the penalty prosivions pertaining to that offense Penalized as a Class D felon
KRS 218A.993 Catchall Violation Any Chapter 218A violation for which a specific penalty is not otherwise provided KRS 218A.993		Class B Misdemeanor

★ = Subsequent Offense
+ = Optional Commitment Treatment
D = Defendant
V = Victim

Coming together is a beginning; keeping together is progress; and working together is success.

- Henry Ford

Note: The following is reprinted from *Baldwin's Kentucky Practice,* Volume 2, with permission of the publisher.

SCHEDULING OF DRUGS UNDER KRS CHAPTER 218A AND 902 KAR CHAPTER 55

Complete to September 15, 1995

Note: This Drug Schedule was developed and prepared by Helen Danser, R.Ph., Pharmacy Services Program Manager, Department for Mental Health and Mental Retardation, Kentucky Cabinet for Human Resources, and is printed with permission.

CHR DRUG CATEGORIES

KRS Chapter 218A defines various schedules of drugs. KRS 218A.020 requires the Cabinet for Human Resources (CHR) to place substances which are not listed in the statute into schedules based on the statutory criteria for each schedule.

Below are compilations of CHR's listings of drugs that fall into various schedules. The first list is by schedule; the second list is alphabetical. The lists are not guaranteed to be all-inclusive.

CHANGES

The drugs placed in a particular schedule may be changed by either DEA or CHR. The change may be a movement from one schedule to another or removal from the controlled schedule. New drugs marketed are screened for abuse potential and may be placed into a schedule at the time of marketing or later depending on experience once the drug is in use. Therefore, **one must check the validity of the scheduling of any drug at periodic intervals.**

ADMINISTRATIVE REGULATIONS

In addition to the KRS Chapter 218A, 902 KAR 55:010 - 55:080 will list drugs in the various schedules.

FURTHER INFO

Inquiries may be addressed to **Mr. Edward Crews, R.Ph.,** Pharmacy Services Program Manager, Drug Control, Department of Health Services—(502)564-7985; or to **Helen Danser, R.Ph.,** Pharmacy Services Program Manager, Department for Mental Health and Mental Retardation Services, Cabinet for Human Resources, Frankfort, Kentucky 40601, (502)564-4448.

REFERENCES

References used in developing the list of drugs in the various schedules are:

1. *Drug Information for the Health Care Professional,* Vol. I
15th Edition 1995
USP DI
U.S. Pharmacopeial Convention, Inc.
P.O. Box 2248
Rockville, MD 20852
2. *Facts and Comparisons* (1994)
Drug Information
13743 Shoreline Court East
Earth City, MO 63045-1215
3. 902 KAR Chapter 55
4. KRS Chapter 218A
5. *The Phamacological Basis of Therapeutics*
Goodman & Gilman Macmillan Publishing Co., Inc. NY
1991

CHR DRUG LIST BY SCHEDULE

SCHEDULE I

A. OPIATES

1-methyl-4-phenyl-4-propionoxypiperidine (MPPP)
1-(2-phenethyl)-4-phenyl-4-acetoxypiperidine (PEPAP)
3-methylfentanyl,N-[3-methyl-1-(2-phenylethyl)-4-piperidyl]-N-phenylpropanamide
3-methylthiofentanyl,N-[3-methyl-1-(2-(2 thienyl)ethyl-4-piperidyl]-N-phenylpropaneamide
Acetyl-alpha-methylfentanyl,N-[1-(1-methyl-2-phenyl)ethyl-4piperidinyl]-N-phenylacetamide
Acetylmethadol
Allylprodine
Alphacetylmethadol [except Levo-alphacetylmethadol (LAMM)]
Alphameprodine
Alphamethadol
Alpha-methylfentanyl,N-[1-(alpha-methyl-beta-phenyl) ethyl-4-piperidyl]propionanilide,
1-(1-methyl-2-phenylethyl)-4-(N-propanilido) piperidine

Alpha-methylthiofentanyl,N-[1-(1-methyl-2-(2-thienyl)ethyl-4-piperidyl]N-phenylpropanamide
Benzethidine
Benzylfentanyl,N-[1-benzyl-4-piperidyl]-N-phenylpropanamide
Betacetylmethadol
Beta-hydroxyfentanyl,N-[1-(2hydroxy-2-phenethyl)ethyl-4-piperidinyl]-N-phenylpropanamide
Beta-hydroxy-3-methylfentanyl,N-[3-methyl-1-(2-hydroxy-2phenyl)ethyl-4-piperidyl]-N-phenylpropanamide
Betameprodine
Betamethadol
Betaprodine
Clonitazene
Dextromoramide
Dextrorphan
Diampromide
Diethylthiambutene
Difenoxin
Dimenoxadol
Dimepheptanol
Dimethylthiambutene
Dioxaphetylbutyrate
Dipipanone
Ethylmethylthiambutene
Etonitazene
Etoxeridine
Furethidine
Hydroxypethidine
Ketobemidone
Levomoramide
Levophenacylmorphan
Morpheridine
Noracymethadol
Norlevorphanol
Normethadone
Norpipanone
Para-fluorofentanyl
Phenadoxone
Phenampromide
Phenomorphan
Phenoperidine
Piritramide
Proheptazine
Properidine
Propiram
Racemoramide
Thenylfentanyl,N-[1-(2-thienyl)methyl-4-piperidyl]N-phenylpropanamide
Thiofentanyl,-N-[1-(2-(2-thienyl)ethyl-4-piperidinyl]-N-phenylpropanamide
Tilidine
Trimeperidine

B. OPIUM DERIVATIVES

Acetorphine
Acetyldihydrocodeine
Benzylmorphine
Codeine Methylbromide
Codeine-N-Oxide
Cyprenorphine
Desomorphine
Dihydromorphine
Drotebanol
Etorphine
Heroin
Hydromorphinol
Methyldesorphine
Methyldihydromorphine
Morphine Methylbromide
Morphine Methylsulfonate
Morphine-N-Oxide
Myrophine
Nicocodeine
Nicomorphine
Normorphine
Phenylcodine
Pholcodine
Thebacon

C. HALLUCINOGENIC SUBSTANCES

1-[1-(2-thienyl) cyclohexyl] pyrrolidine (TCPy)
2-Methylamino-1-phenylpropan-1-one (including, but not limited to, methcathione, Cat, and Ephedrone)
2,5-dimethoxy-4-ethylamphetamine (DOET)
2,5-dimethoxyamphetamine (2,5 DMA)
3,4 methylenedioxy amphetamine (MDMA)
3,4-methylenedioxy amphetamine
3,4-methylenedioxy-N-ethylamphetamine (N-ethyl-alpha-methyl-3,4(methylenedioxy) phenethylamine,N-ethyl MDA, MDE, MDEA
3,4,5-Trimethoxy amphetamine
4-bromo-2,5dimethoxy-amphetamine
4-Methoxyamphetamine(PMA)
4-Methyl-2,5-dimethoxylamphetamine
5, Methoxy-3,4 methylenedioxy amphetamine
Alpha-ethyltryptamine (alpha-ethyl-1H-indole-3-ethanamine,3-(2-aminobutyl)indol
Bufotenine
Diethyltryptamine
Dimethyltryptamine
Ethylamine analog of phencyclidine (N-ethyl-1-phenylcyolohexylamine,cyclohexamine,PCE)
Hashish
Ibogaine
Marijuana
Mescaline
N-ethyl-3-piperidyl benzilate
N-hydroxy-3,4-methylenedioxyamphetamine (N-hydroxy-alpha-methyl-3,4(methylenedioxy)phenethylamine,N-hydroxy MDA)
N-Methyl-3-piperidyl benzilate
Parahexyl (Synhexyl)
Peyote
Phencyclidine
Psilocybin
Psilocyn
Pyrrolidine analog of phencyclidine (1-(1-phenylcyclohexyl)-pyrrolidine, PCPy, PHP
Tetrahydrocannabinols
Thiophene analog of phencyclidine (1-(1-(2-thienyl)cyclohexyl) piperidine, TCP, TPCP)

D. DEPRESSANTS

Mecloqualone
Methaqualone(2-methyl-3-0-tolyl-4(3H)quinazolinone

E. STIMULANTS

3,4-methylenedioxymethamphetamine (MDMA)
4-methylaminorex(2-amino-4-methyl-5-phenyl-2-oxazoline)
Aminorex (aminoxaphen,2-amino-5-phenyl-2-oxazoline,4,5-dihydro-5phenyl-2-oxazolamine
Cathinone (2-amino-1-phenyl-1-propanone, alphaaminopropiophenone,2-aminopropiophenone, and norephedrone
(+)cis-4-methylaminorex ((+)cis-4,5-dihydro-4methyl-5 phenyl-2-oxazolamine)
Fenethylline
Methcathinone (2-(methylamino) propiophenone, alpha(methylamino)-propiophenone, alpha (methylamino)-propiophenone-2 (methylamino)-1-phenylpropane-1-one,alpha-N-methylamino-phenone, monomethylpropion, ephedrone, N-methylcathinone, methylcathinone, AL-464, AL-422, AL 463 and UR 1431), its salts, optical isomers and salts of optical isomers
N-ethylamphetamine
N,N,alpha-trimethylphenylamine), its salts, optical isomers and salts of optical isomers
N,N-dimethylamphetamine (N,N,alpha-trimethylbenzene-ethaneamine,N,N,alpha-trimethylphenethylamine), its salts, optical isomers and salts of optical isomers

SCHEDULE II

A. OPIOID NARCOTICS

1-Diphenyl-propane-carboxylic acid
2-Methyl-3-morpholino-1
4-Cyano-2-Dimethylamino-4
4-Diphenyl butane
Alfentanil
Alphaprodine HCl—(Nisentel)
Anileridine
Benzitramide
Codeine
Dihydrocodeine
Diphenoxylate
Ethylmorphine
Etorphine hydrochloride
Fentanyle—(Sublimaze)
Granulated opium
Hydrocodone
Hydromorphone—(Dilaudid)
Isomethadone
Levo-alphacetylmethadol (LAMM)
Levomethorphan
Levorphanol—(Levo-Dromoran)
Meperidine—(Demeral, Pethadol)
Metazocine
Methadone—(Dolophine)
Methadone-Intermediate
Metopon
Moramide-Intermediate
Morphine Sulfate—[Roxanol, RMS Uniserts (rectal suppositories)]
Opium fluid
Opium Tincture
Oxycodone HCl
Oxymorphone—(Numorphan)
Pantopon—(Hydrochlorides, opium alkaloids)
Pethidine
Pethidine-Intermediate-A,4 cyano-1-methyl-4-phenylpiperidine
Pethidine-Intermediate-B ethyl-4-phenylpiperdine-4-carboxylate
Pethidine-Intermediate-C 1-methyl-4-phenylpiperidine-4-carboxylic acid
Phenazocine
Piminodine
Powdered opium
Racemethorphan
Racemorphan
Raw opium
Raw opium extracts
Sufentanil—(Sufenta)
Thebaine

B. COMBINATIONS OF OPIOIDS

B & O Supprettes No. 15A
B & O Supprettes No. 16A
Codoxy Tablets
Demerol APAP
Mepergan Fortis Capsules
Mepergan Injection
Opium & Belladonna Suppositories
Oxycodone & Acetaminophen tablets
Oxycodone HCl, Oxycodone Terephthalate & Aspirin tablets
Oxycodone with Acetaminophen
Oxycodone with aspirin tablets
Percodan—Demi tablets
Percodan Tablets
Tylox Capsules

C. HALLUCINOGENIC SUBSTANCES

Unless specifically excepted or listed in another schedule, any material, compound, mixture, or preparation which contains any quantity of:

1-Dronabinol (synthetic) in sesame oil and encapsulated in a soft gelatin capsule is a U.S. Food and Drug Administration approved drug product (some other names for dronabinol: [6aR-trans]-6a,7,8, or (-) delta-9-[trans]-tetrahydrocannabinol)
2-Nabilone (another name for nabilone: [+]-trans-3-(1,1-dimethylheptyl)-6,6a,7,8,10, 10a-hexahydro-1-hydroxy-6,6-dimethyl-9H-dibenzo[b,d]pyran-9-one)

D. OPIATES

Alfentanil
Bulk Dextropropoxyphene (non-dosage forms)
Carfentanil
Sufentanil

E. STIMULANTS

Adderall
Cocaine
Dextroamphetamine
Methamphetamine
Methylpheidate
Phenmetrazine

SCHEDULE II—DEPRESSANTS

Amobarbital—(Amytal)
Amobarbital + Secobarbital—(Tuinal)
Glutethimide (Doredin)
Pentobarbital (Nembutal)

Secobarbital—Seconal

Any drug approved by the United States Food and Drug Administration for marketing only as a suppository including Amobarbitol, Pentobarbital or Secobarbital shall be in Schedule III.

A. IMMEDIATE PRECURSORS

1 —Piperidinocyclohexanecarbonitrile

1 —Phenylcyclohexylamine, immediate precursor to Phencyclidine

Phenylacetone—other names include phenyl-2-propanone, P2P, benzyl methyl ketone and methylbenzylketone—immediate precursor to amphetamine and methamphetamine

1—Piperidinocyclphexanecarbonitrile, immediate precursor to Phencyclidine

SCHEDULE III—OPIOID NARCOTICS

A. PRODUCTS CONTAINING CODEINE

Anatuss with Codeine tablets
Anexsia
Aspirin with Codeine
Colrex compound capsules
Copavin Pulvules
Empirin with Codeine
Fiorinal with Codeine
Hycodan tablets
Nalline—Nalorphine
Nucofed
Nucofed Expectorant Syrup with Codeine
Phenaphen with Codeine
Talwin—Pentazocine, all forms including its salts
Tylenol with Codeine #1, 2, 3, and 4
Vanex-HD Liquid

B. PRODUCTS CONTAINING HYDROCODONE

Bancap
Codamine
Codiclear DH Syrup
Codimal PH Syrup
Co-gesic tablets
Detussin, various
Duocet
Entuss D Liquid
Histussin Ed Tuss HC Liquid
Hycodan
Hycomine
Hycomine Pediatric Syrup
Hycotuss Expectorant
Hydrocodone Compound Syrup
Hydropane
Hydrophen
Hydro-Propanolamine
Hy-Phen Tablets
Lorcet
Lortab
Rolatuss with Hydrocodone
S.T. Forte Liquid 2
Triaminic Expectorant DH
Tussanil DH Syrup
Tussgen
Tussionex

C. PRODUCTS CONTAINING OPIUM

Paregoric

SCHEDULE III

1—STIMULANTS

Benzphetamine—Didrex
Chlorphentermine
Chlortermine
Mediatric
Phendimetrazine, to include but not necessarily be limited to:
Adipost
Adphen
Anorex
Bacarate
Bontril PDM
Bontril Slow-Release
Dyrexan-OD
Melfiat
Melfiat-105 Unicells
Metra
Obalan
Obeval
Phenzine
Plegine
Prelu-2
Slyn-LL
Statobex
Trimcaps
Trimstat
Trimtabs
Weh-less
Wehless-105 Timecells
Weightrol

2—AMPHETAMINE AND METHAMPHETAMINE COMBINATIONS

Any material, compound, mixture, or preparation which contains any quantity of the following substances, or any salts or isomers of these substances, in quantities equal to or less than those listed.

3—DEPRESSANTS

—any material, compound, mixture or preparation containing amobarbital, secobarbital, pentobarbital, or any of their salts and one or more active medicinal ingredient that is not a controlled substance.

—any suppository form that contains amobarbital, secobarbital, pentobarbital approved only for use in suppository form.

—tiletamine and zolazepam or any of their salts.

other names for tiletamine are: 2-(ethylamino)-2-(2-thienyl)-cyclohexanone

other names for zolazepam are: 4-(2-flurophenyl)-6,8-dihydro-1,3,8-trimethylpyrazolo-(3,4-e) (1,4)-diazepin-7(1H)-one, flupyrazpon

Butabarbital—Butisol
Chloral Hydrate
Mephobarbitol
Metharbital
Methyprylon
Phenobarbital
Sulfomethane
Sulfondiethylmethane
Sulfonethylmethane
Talbutal

SCHEDULE III—ANABOLIC STEROIDS

It is unlawful for a prescription or order to be written for an anabolic steroid; for such steroids to be distributed and/or sold for the following purposes:

—enhanced performance in exercise, sport, or game,
—the hormonal manipulation necessary to increase muscle mass, weight, strength without a medical necessity and further it is unlawful for anyone to intentionally make or deliver an anabolic steroid whether in a pure or unpure state and it is unlawful to possess an anabolic steroid for the purpose of illegal delivery or manufacture.

The following anabolic steroids or a material compound mixture or preparation that contain any of the following:

1) Boldenone
2) Chlorotestosterone
3) Dihydrotestosterone
4) Drostanolone
5) Fluoxymesterone
6) Formebulone
7) Methandranone
8) Methandriol
9) Methyltestosterone
10) Mibolerone
11) Nandrolone decanoate
12) Nandrolone phenpropionate
13) Oxandrolone
14) Oxymetholone
16) Stanolone
15) Stanozolol
17) Testolactone
18) Testosteronepropionate
19) Trenbolone

SCHEDULE IV

Chloral Hydrate—(Noctec, Somnos, Nycton, Lorinal, Chloraldurat)
Ethchlorvynol—(Placidyl)
Ethinamate—(Valmid)
Meprobamate—(Equanil, Miltown, Meprospan)
Paraldehyde

A. STIMULANTS

Cathinel ((+)—Norpseudoephedrine)
Diethylpropion HCl—(Depletite-25; Tenuate; Tepanil; Tenuate Dospan; Tepanil Ten-Tab)
Fencamfamin
Fenfluramine HCl—(Pondimin)
Fenproporex
Mazindol
Mefenorex
Pemoline
Phentermine
Phentermine HCl—(Phentrol; Tora; Fastin; Obe-Nix; Obephen; Obrmine; Obestin-30; Phentrol 2; Unifast Unicells; Wilpowr; Adipex-P; Dapex-37.5 Ionamin; Parmine; Phentrol 4; Phentrol 5)
Pipradrol—(Detaril; Gerodyl; Meratran; Pipradol)
SPA-1(-)—1-Dimethylamino-1,2-Diphenylathane

B. DEPRESSANTS

Alprazolam—(Xanax)
Bromazepam
Camazepam
Chlordiazepoxide—(Librium; Libritabs; A-Poxide; Lipoxide; SK-Lygen; Murcil; Reposans-10; Sereen)
Clobazam
Clonazepam—(Klonopin)
Clorazepate—(Tranxene)
Clotiazepam
Cloxazolam—(Enadel; Sepazon)
Delorazepam
Diazepam—(Valium)
Estazolam—(Eurodin; Julodin)
Ethyl loflazopate
Fludiazeopam
Flunitrazepam—(Rohypnol)
Flurazepam—(Dalmane)
Halazepam—(Paxipam)
Haloxazolam
Ketozolam
Loprazolam
Lorazepam—(Ativan; Emotival; Lorax; Psicopax; Tavor; Temesta)
Lormetazepam
Mebutamate—(W-583; Capla; Butatensin; Carbuten; Mebutina; Prean; Sigmafon; Vallene; Mega; No-Press; Axiten; Ipotensivo)
Medazepam—Ansilan; Diepin; Elbrus; Esmail; (Medazepol; Mezepan; Megasedan; Nobrium; Pazital; Psiquium; Resmit; Rudotel; Serenium; Siman)
Methohexital—(Brevital; Brevital Sodium; Brevimytal Sodium, Brietal Sodium)
Midazolam
Nimetazepam
Nitrazepam—(Benozalin; Calsmin; Eunoctin; Mosadan; Mogadon; Nelbon; Nitrenpax; Paxisyn; Pelson; Radedorm; Relact; Sonebon; Sonnolin)
Nordiazepam
Oxazepam—(Serax; Aplakil; Bonare; Enidrel; Hilong; Isodin; Limbial; Nesontil; Praxiten; Propax; Quilitrex; Rondar; Serenal; Serenid; Serepax; Seresta; Sobril; Tazepam)
Oxazolam—(Serenal)
Pinazepam
Prazepam—(Demetrin; Verstran; Centrax)
Quazepam
Temazepam—(Myolastin, Restoril)
Tetrazepam
Triazolam—(Halcion)

C. ANALGESICS

Dextropropoxyphene—(Darvon)

SCHEDULE V

Actifed with Codeine Cough Syrup
Alamine—(C Liquid)
Alamine Expectorant
Ambay Cough
Ambenyl Cough Syrup
Ambophen Expectorant
Anatuss with Codeine Syrup
BayCotussend Liquid
Bromanyl Expectorant
Bromphen DC with Codeine Cough
Buprenorphine HCl
Calcidrine Syrup
Cherocol Syrup
Codimal PH Syrup

Cophene-S Syrup
C-Tussin Expectorant
Deproist Expectorant with Codeine
Dihistine Expectorant
Dimetane DC Cough Syrup
Donnagel P.G.
Guiatuss DAC Liquid
Guiatussin DAC Syrup
Isoclor Expectorant Liquid
Kaopectolin PG
Kolephrin with Codeine Liquid
Lomotil
Mytussin DAC Liquid
Naldecon-CX Suspension
Nucofed Pediatric Expectorant
Pediacof Cough Syrup
Phenergan Codeine Syrup
Phenergan VC with Codeine Syrup
Phenergan with Codeine Syrup
Phenhist DH with Codeine Liquid
Promethazine VC with Codeine
Promethazine with Codeine
Robitussin A.C. Syrup
Robitussin-DAC Syrup
Ru-Tuss with Hydrocodone Liquid
Ryna-CX Liquid
Triacin C Syrup
Triafed with Codeine
Triaminic Expectorant with Codeine
Tussar 2 Cough Syrup
Tussar SF Cough Syrup
Tussi-Organidin NR
Tussirex
Tylenol with Codeine Elixir

EXCLUDED NONNARCOTIC PRODUCTS

Phenobarb—Theophed—Bioline—Tablets
Phenobarb—Guiaphed Elixir—Goldine—Elixir (liquid)
Phenobarb—Tedrigen Tablets—Goldline—Tablets
Chloral Hydrate—Choate's Leg Freeze—Hawthorne Products, Inc—Liquid
Phenobarb—Tedral—Parke Davis & Co—Tablets
Phenobarb—Tedral Elixir—Parke Davis & Co—Elixir (liquid)
Phenobarb—Tedral Suspension—Parke Davis & Co—Suspension (liquid)
Phenobarb—Tedral Sustained Action—Parke Davis & Co—Tablets
Phenobarb—Asma—Ese—Parmed—Tablets
Phenobarb—Azma—Aids—Rondex Labs—Tablets
Propylhexedrine—Benzedrex—Smith Kline Consumer—Inhaler
Phenobarb—Bronkolixir—Sterling Drug, Inc—Elixir (Liquid)
Phenobarb—Bronkotabs—Sterling Drug, Inc—Tablet
L Desoxyephedrine—Vicks Inhaler—Vicks Chemical Co—Inhaler
Phenobarb—Primatene (P-Tablets) White Hall Labs—Tablet

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ALPHABETICAL LISTING

1-Diphenyl-propane-carboxylic acid—Schedule II - Opioid Narcotics
1-Dronabinol (synthetic) —Schedule II - Hallucinogenic Substances
1-Methyl-4-phenyl-4-propionoxypiperidine (MPPP)—Schedule I - Opiates
1-Phenylcyclohexylamine —Schedule II - Immediate Precursors
1-Piperidinocyclohexanecarbonitrile —Schedule II - Immediate Precursors
1-[1-(2-Thienyl) cyclohexyl] pyrrolidine (TCPy)—Schedule I - Hallucinogenic Substances
1-(2-phenethyl)-4-phenyl-4-acetoxypiperidine (PEPAP)
2-Methyl-3-morpholino-1—Scheulde II - Opioid Narcotics
2-Methylamino-1-phenylpropan-1-one (including, but not limited to Methcathione, Cat, and Ephedrone)—Schedule I - Hallucinogenic Substances
2-Nabilone —Schedule II - Hallucinogenic Substances
2,5-Dimethoxy-4-ethylamphetamine (DOET)—Schedule I - Hallucinogenic Substances
2,5-Dimethoxyamphetamine (2,5 DMA)—Schedule I - Hallucinogenic Substances
3-(+)Cis-4-methylaminorex((+)cis-4,5 dihydro-4-methyl-5 phenyl-2-oxazolamine)—Schedule I - Stimulants
3-Methylfentanyl,N-[3-methyl-1-(2-phenylethyl)-4-piperidyl]-N-phenylpropanamide—Schedule I - Opiates
3-Methylthiofenanyl,N-[3methyl-1-1(2-(2thienyl)-4-piperidyl]-N-phenylpropaneamide—Schedule I - Opiates
3,4 Methylenedioxy amphetamine (MDMA)—Schedule I - Hallucinogenic Substances
3,4-Methylenedioxy-N-ethylamphetamine (N-ethyl-alpha methyl-3,4(methylenedioxy) phenethylamine,N-ethyl MDA, MDE, MDEA—Schedule I - Hallucinogenic Substances
3,4,5-Trimethoxy amphetamine—Schedule I - Hallucinogenic Substances
4-Bromo-2,5 dimethoxy-amphetamine
4-Cyano-2-dimethylamino-4—Schedule II - Opioid Narcotics
4-Diphenyl butane—Schedule II - Opioid Narcotics
4-Methoxyamphetamine(PMA)—Schedule I - Hallucinogenic Substances
4-Methyl-2,5-dimethoxylamphetamine—Schedule I - Hallucinogenic Substances
5-Methcathione[2-(methylamino) propiophenone,alpha(methylamino-propiophenone,alpha(methylamino-propiophenone-2 (methylamino)-1-phenylpropane-1-one, alpha-N-methylamino-phenone, monomethylpropion, ephedrone, N-methylcathione, AL-464, AL-422, AL 463 and UR 1431), its salts, optical isomers and salts of optical isomers—Schedule I - Stimulants
5,Methoxy-3,4 methylenedioxy amphetamine—Schedule I - Hallucinogenic Substances

A

Acetorphine—Schedule I - Opium Derivatives
Acetyl-alpha-methylfentanyl,N[1-(1-methyl-2-phenyl)-4 piperidinyl-N-phenylacetamide—Schedule I - Opiates
Acetyldihydrocodeine—Schedule I - Opium Derivatives

Acetylmethadol—Schedule I - Opiates
Actifed with Codeine Cough Syrup—Schedule V
Adderall—Schedule II - Stimulants
Adipost—Schedule III - Phendimetrazine
Adphen—Schedule III - Phendimetrazine
Alamine—(C Liquid)—Schedule V
Alamine Expectorant—Schedule V
Alfentanil—Schedule II - Opioid Narcotics
Alfentanil—Schedule II - Opiates
Allylprodine—Schedule I - Opiates
Alphacetylmethadol [except Levo-alphacetylmethadol (LAMM)]—Schedule I - Opiates
Alpha-ethyltryptamine(alpha-ethyl-1 H-indole-3-ethanamine,3-(2-aminobutyl) indol)—Schedule I - Hallucinogenic Substances
Alphameprodine—Schedule I - Opiates
Alphamethadol—Schedule I - Opiates
Alpha-Methylfentanyl—Schedule I - Opiates
Alpha-methylthiofentanyl,N-[1-methyl-2-(2-thienyl) ethyl-4-piperidinyl-N-phenylpropanamide—Schedule I - Opiates
Alphaprodine HCl—(Nisentel)—Schedule II - Opioid Narcotics
Alprazolam—(Xanax)—Schedule IV - Depressants
Ambay Cough—Schedule V
Ambenyl Cough Syrup—Schedule V
Ambophen Expectorant—Schedule V
Aminorex(aminoxaphen, 2 amino-5-phenyl-2-oxazoline,4,5-dihydro-5 phenyl-2-oxazolamine—Schedule I - Stimulants
Amobarbital + Secobarbital—(Tuinal)—Schedule II - Depressants
Amobarbital—(Amytal)—Schedule II - Depressants
Anatuss with Codeine Syrup—Schedule V
Anatuss with Codeine tablets—Schedule III - Opioid Narcotics, Codeine
Anexsia—Schedule III - Opioid Narcotics, Codeine
Anileridine—Schedule II - Opioid Narcotics
Anorex—Schedule III - Phendimetrazine
Asma - Ese - Excluded products
Aspirin with Codeine—Schedule III - Opioid Narcotics, Codeine
Azma - Aids - Excluded products

B

B & O Supprettes No. 15A—Schedule II - Combinations of Opioids
B & O Supprettes No. 16A—Schedule II - Combinations of Opioids
Bacarate—Schedule III - Phendimetrazine
Bancap—Schedule III - Opioid Narcotics, Hydrocodone
BayCotussend Liquid—Schedule V
Benzedrex—Excluded products
Benzethidine—Schedule I - Opiates
Benzitramide—Schedule II - Opioid Narcotics
Benzphetamine Didrex—Schedule III - Stimulants
Benzylfentanyl,N-[1-benzyl-4-piperidyl]-N-phenyl propanamide—Schedule I - Opiates
Benzylmorphine—Schedule I - Opium Derivatives
Betacetylmethadol—Schedule I - Opiates
Beta-hydroxy-3-methylfentanyl,N-[3-methyl-1-(2-hydroxy-2 phenyl)ethyl-4-piperidyl]-N-phenylpropanamide—Schedule I - Opiates
Beta-hydroxyfentanyl,N-[1-(2 hydroxy-2-phenylethyl)-4-piperidinyl]-N-phenypropanamide—Schedule I - Opiates
Betameprodine—Schedule I - Opiates
Betamethadol—Schedule I - Opiates
Betaprodine—Schedule I - Opiates
Boldenone—Schedule III - Anabolic Steroids
Bontril PDM—Schedule III - Phendimetrazine
Bontril Slow-Release—Schedule III - Phendimetrazine
Bromanyl Expectorant—Schedule V
Bromazepam—Schedule IV - Depressants
Bromphen DC with Codeine Cough Syrup—Schedule V
Bronkolixir—Excluded products
Bronkotabs—Excluded products
Bufotenine—Schedule I - Hallucinogenic Substances
Bulk Dextropropoxyphene (non-dosage forms)—Schedule II - Opiates
Buprenorphine—Schedule V
Butabarbital—Butisol—Schedule III - Depressants

C

Calcidrine Syrup—Schedule V
Camazepam
Carfentanil—Schedule II - Opiates
Cathinel ((+)—Norpseudoephedrine)—Schedule IV - Stimulants
Cathinone (2-amino-1-phenyl-1-propanone,alpha-aminopropiophenone,2-aminopropiophenone, and norephedrone—Schedule I - Stimulants
Cherocol Syrup—Schedule V
Chloral Hydrate—Schedule III - Depressants
Chloral Hydrate—(Noctec, Somnos, Nycton, Lorinal, Chloraldurat)—Schedule IV - Depressants
Chloral Hydrate—Choate's Leg Freeze—Excluded products
Chlordiazepoxide—(Librium; Libritabs; A-Poxide; Lipoxide; SK-Lygen; Murcil; Reposans-10; Sereen)—Schedule IV - Depressants
Chlorotestosterone—Schedule III - Anabolic Steroids
Chlorphentermine—Schedule III - Stimulants
Chlortermine—Schedule III - Stimulants
Clobazam—Schedule IV - Depressants
Clonazepam—(Klonopin)—Schedule IV - Depressants
Clonitazene—Schedule I - Opiates
Clorazepate—(Tranxene)—Schedule IV - Depressants
Clotiazepam—Schedule IV - Depressants
Cloxazolam—(Enadel; Sepazon)—Schedule IV - Depressants
Cocaine—Schedule II - Stimulants
Codamine—Schedule III - Opioid Narcotics, Hydrocodone
Codeine Methylbromide—Schedule I - Opium Derivatives
Codeine-N-Oxide—Schedule I - Opium Derivatives
Codeine—Schedule II - Opioid Narcotics
Codiclear DH Syrup—Schedule III - Opioid Narcotics, Hydrocodone
Codimal PH Syrup—Schedule III - Opioid Narcotics, Hydrocodone
Codimal PH Syrup—Schedule V
Codoxy Tablets—Schedule II - Combinations of Opioids
Co-gesic tablets—Schedule III - Opioid Narcotics, Hydrocodone
Colrex compound capsules—Schedule III
Copavin Pulvules—Schedule III - Opioid Narcotics, Codeine
Cophene-S Syrup—Schedule V
C-Tussin Expectorant—Schedule V

Cyprenorphine—Schedule I - Opium Derivatives

D

Delorazepam—Schedule IV - Depressants
Demerol APAP—Schedule II - Combinations of Opioids
Deproist Expectorant with Codeine—Schedule V
Desomorphine—Schedule I - Opium Derivatives
Detussin—Schedule III - Opioid Narcotics, Hydrocodone
Dextroamphetamine—Schedule II - Stimulants
Dextromoramide—Schedule I - Opiates
Dextropropoxyphene—(Darvon)—Schedule IV - Analgesics
Dextrorphan—Schedule I - Opiates
Diampromide—Schedule I - Opiates
Diazepam—(Valium)—Schedule IV - Depressants
Diethylpropion HCl—(Depletite-25; Tenuate; Tepanil; Tenuate Dospan; Tepanil Ten-Tab)—Schedule IV - Stimulants
Diethylthiambutene—Schedule I - Opiates
Diethyltryptamine—Schedule I - Hallucinogenic Substances
Difenoxin—Schedule I - Opiates
Dihistine Expectorant—Schedule V
Dihydrocodeine—Schedule II - Opioid Narcotics
Dihydromorphine—Schedule I - Opium Derivatives
Dihydrotestosterone—Schedule III - Anabolic Steroids
Dimenoxadol—Schedule I - Opiates
Dimepheptanol—Schedule I - Opiates
Dimetane DC Cough Syrup—Schedule V
Dimethylthiambutene—Schedule I - Opiates
Dimethyltryptamine —Schedule I - Hallucinogenic Substances
Dioxaphetylbutyrate—Schedule I - Opiates
Diphenoxylate—Schedule II - Opioid Narcotics
Dipipanone—Schedule I - Opiates
Donnagel P.G.—Schedule V
Drostanolone—Schedule III - Anabolic Steroids
Drotebanol—Schedule I - Opium Derivatives
Duocet—Schedule III - Opioid Narcotics, Hydrocodone
Dyrexan-OD—Schedule III - Phendimetrazine

E

Empirin with Codeine—Schedule III - Opioid Narcotics, Codeine
Entuss D Liquid—Schedule III - Opioid Narcotics, Hydrocodone
Estazolam—(Eurodin; Julodin)—Schedule IV - Depressants
Ethchlorvynol—(Placidyl)—Schedule IV
Ethinamate—(Valmid)—Schedule IV
Ethylamine analog of phencyclidine (N-ethyl-1-phencyclohexylamine, cyclohexamine,PCE)—Schedule I - Hallucinogenic Substances
Ethyl loflazopate—Schedule IV - Depressants
Ethylmethylthiambutene—Schedule I - Opiates
Ethylmorphine—Schedule II - Opioid Narcotics
Etonitazene—Schedule I - Opiates
Etorphine—Schedule I - Opium Derivatives
Etorphne hydrochloride—Schedule II - Opioid Narcotics
Etoxeridine—Schedule I - Opiates

F

Fencamfamin—Schedule IV - Stimulants
Fenethylline—Schedule I - Stimulants
Fenfluramine HCl—(Pondimin)—Schedule IV - Stimulants
Fenproporex—Schedule IV - Stimulants
Fentanyle—(Sublimaze)—Schedule II - Opioid Narcotics
Fiorinal with Codeine—Schedule III - Opioid Narcotics, Codeine
Fludiazeopam—Schedule IV - Depressants
Flunitrazepam—(Rohypnol)—Schedule IV - Depressants
Fluoxymesterone—Schedule III - Anabolic Steroids
Flurazepam—(Dalmane)—Schedule IV - Depressants
Formebulone—Schedule III - Anabolic Steroids
Furethidine—Schedule I - Opiates

G

Glutethimide (Doredin)—Schedule II - Depressants
Granulated opium—Schedule II - Opioid Narcotics
Guiaphed Elixir—Excluded products
Guiatuss DAC Syrup Liquid—Schedule V
Guiatussin—Schedule V

H

Halazepam—(Paxipam)—Schedule IV - Depressants
Haloxazolam—Schedule IV - Depressants
Hashish—Schedule I - Hallucinogenic Substances
Heroin—Schedule I - Opium Derivatives
Histussin Ed Tuss HC Liquid—Schedule III - Opioid Narcotics, Hydrocodone
Hycodan—Schedule III - Opioid Narcotics, Hydrocodone
Hycodan tablets—Schedule III - Opioid Narcotics, Codeine
Hycomine Pediatric Syrup—Schedule III - Opioid Narcotics, Hydrocodone
Hycomine—Schedule III - Opioid Narcotics, Hydrocodone
Hycotuss Expectorant—Schedule III - Opioid Narcotics, Hydrocodone
Hydrocodone Compound Syrup—Schedule III - Opioid Narcotics, Hydrocodone
Hydrocodone—Schedule II - Opioid Narcotics
Hydromorphinol—Schedule I - Opium Derivatives
Hydromorphone—(Dilaudid)—Schedule II - Opioid Narcotics
Hydropane—Schedule III - Opioid Narcotics, Hydrocodone
Hydrophen—Schedule III - Opioid Narcotics, Hydrocodone
Hydro-Propanolamine—Schedule III - Opioid Narcotics, Hydrocodone
Hydroxypethidine—Schedule I - Opiates
Hy-Phen Tablets—Schedule III - Opioid Narcotics, Hydrocodone

I

Ibogaine —Schedule I - Hallucinogenic Substances
Iophen-C Liquid—Schedule V
Isoclor Expectorant Liquid—Schedule V
Isomethadone—Schedule II - Opioid Narcotics

K

Kaopectolin P.G.—Schedule V
Ketobemidone—Schedule I - Opiates
Ketozolam—Schedule IV - Depressants
Kolephrin with Codeine Liquid—Schedule V

L

Levo-alphacetylmethadol (LAMM)—Schedule II - Opioid Narcotics
Levomoramide—Schedule I - Opiates

Levomethorphan—Schedule II - Opioid Narcotics
Levorphanol—(Levo-Dromoran)—Schedule II - Opioid Narcotics
Levophenacylmorphan—Schedule I - Opiates
Lomotil—Schedule V
Loprazolam—Schedule IV - Depressants
Lorazepam—(Ativan; Emotival; Lorax; Psicopax; Tavor; Temesta)—Schedule IV - Depressants
Lorcet—Schedule III - Opioid Narcotics, Hydrocodone
Lormetazepam—Schedule IV - Depressants
Lortab—Schedule III - Opioid Narcotics, Hydrocodone
Lysergic acid diethylamide—Schedule I - Hallucinogenic Substances

M

Marijuana—Schedule I - Hallucinogenic Substances
Mazindol—Schedule IV - Stimulants
Mebutamate—(W-583; Capla; Butatensin; Carbuten; Mebutina; Prean; Sigmafon; Vallene; Mega; No-Press; Axiten; Ipotensivo)
Mecloqualone—Schedule I - Depressants
Medazepam—Ansilan; Diepin; Elbrus; Esmail; (Medazepol; Mezepan; Megasedan; Nobrium; Pazital; Psiquium; Resmit; Rudotel; Serenium; Siman)—Schedule IV - Depressants
Mediatric—Schedule III - Stimulants
Mefenorex—Schedule IV - Stimulants
Melfiat—Schedule III - Phendimetrazine
Melfiat-105 Unicells—Schedule III - Phendimetrazine
Mepergan Fortis Capsules—Schedule II - Combinations of Opioids
Mepergan Injection—Schedule II - Combinations of Opioids
Meperidine—(Demeral, Pethadol)—Schedule II - Opioid Narcotics
Mephobarbitol—Schedule III - Depressants
Meprobamate—(Equanil, Miltown, Meprospan)—Schedule IV
Mescaline—Schedule I - Hallucinogenic Substances
Metazocine—Schedule II - Opioid Narcotics
Methadone—(Dolophine)—Schedule II - Opioid Narcotics
Methadone Intermediate—Schedule II - Opioid Narcotics
Methamphetamine—Schedule II - Stimulants
Methandranone—Schedule III - Anabolic Steroids
Methandriol—Schedule III - Anabolic Steroids
Methaqualone (2-methyl-3-o-tolyl-4(3H)-quinazolinone) Quaalude—Schedule I - Depressants
Metharbital—Schedule III - Depressants
Methohexital—(Brevital; Brevital Sodium; Brevimytal Sodium, Brietal Sodium)—Schedule IV - Depressants
Methyldesorphine—Schedule I - Opium Derivatives
Methyldihydromorphine—Schedule I - Opium Derivatives
Methylpheidate—Schedule II - Stimulants
Methyltestosterone—Schedule III - Anabolic Steroids
Methyprylon—Schedule III - Depressants
Metopon—Schedule II - Opioid Narcotics
Metra—Schedule III - Phendimetrazine
Mibolerone—Schedule III - Anabolic Steroids
Midazolam—Schedule IV - Depressants
Moramide-Intermediate—Schedule II - Opioid Narcotics
Morpheridine—Schedule I - Opiates
Morphine Methylbromide—Schedule I - Opium Derivatives
Morphine Methylsulfonate—Schedule I - Opium Derivatives
Morphine-N-Oxide—Schedule I - Opium Derivatives
Morphine Sulfate—[Roxanol, RMS Uniserts (rectal suppositories)] —Schedule II - Opioid Narcotics
Myrophine—Schedule I - Opium Derivatives
Mytussin DAC Liquid—Schedule V

N

N-[1-(alpha-methyl-beta-phenyl) ethyl-4-piperidyl] propionanilide,1-(1-methyl-2-phenylethyl-4-(N-propanilido) piperidine—Schedule I
Naldecon-CX Suspension—Schedule V
Nalline-Nalorphine—Schedule III - Opioid Narcotics, Codeine
Nandrolone decanoate—Schedule III - Anabolic Steroids
Nandrolone phenpropionate—Schedule III - Anabolic Steroids
N-ethyl-3-piperidyl benzilate—Schedule I - Hallucinogenic Substances
N-ethylamphetamine—Schedule I - Stimulants
N-hydroxy-3,4-methylenedioxyamphetamine(N-hydroxy-alpha-methyl-3,4(methylenedioxy) phenethylamine,N-hydroxy MDA)—Schedule I - Hallucinogenic Substances
N-Methyl-3-piperidyl benzilate—Schedule I - Hallucinogenic Substances
N,N,alpha-trimethylphenylamine), its salts, optical isomers and salts of optical isomers—Schedule I - Stimulants
N,N-dimethylamphetamine (N,N,alpha-trimethylbenzene-ethaneamine,N,N,alpha-trimethylphenethylamine), its salts, optical isomers and salts of optical isomers—Schedule I - Stimulants
Nicocodeine—Schedule I - Opium Derivatives
Nicomorphine—Schedule I - Opium Derivatives
Nimetazepam—Schedule IV - Depressants
Nitrazepam—(Benozalin; Calsmin; Eunoctin; Mosadan; Mogadon; Nelbon; Nitrenpax; Paxisyn; Pelson; Radedorm; Relact; Sonebon; Sonnolin)—Schedule IV - Depressants
Noracymethadol—Schedule I - Opiates
Nordiazepam—Schedule IV - Depressants
Norlevorphanol—Schedule I - Opiates
Normethadone—Schedule I - Opiates
Normorphine—Schedule I - Opium Derivatives
Norpipanone—Schedule I - Opiates
Nucofed Expectorant Syrup with Codeine—Schedule III - Opioid Narcotics, Codeine
Nucofed Pediatric Expectorant—Schedule V
Nucofed—Schedule III - Opioid Narcotics, Codeine

O

Obalan—Schedule III - Phendimetrazine
Obeval—Schedule III - Phendimetrazine
Opium & Belladonna Suppositories—Schedule II - Combinations of Opioids
Opium fluid —Schedule II - Opioid Narcotics
Opium Tincture—Schedule II - Opioid Narcotics
Oxandrolone—Schedule III - Anabolic Steroids
Oxazepam—(Serax; Aplakil; Bonare; Enidrel; Hilong; Isodin; Limbial; Nesontil; Praxiten; Propax; Quilitrex; Rondar; Serenal; Serenid; Serepax; Seresta; Sobril; Tazepam)—Schedule IV - Depressants
Oxazolam—(Serenal)—Schedule IV - Depressants
Oxycodone & Acetaminophen tablets—Schedule II - Combinations of Opioids
Oxycodone HCl, Oxycodone Terephthalate & Aspirin tablets—Schedule II - Combinations of Opioids
Oxycodone HCl—Schedule II - Opioid Narcotics

Oxycodone with Acetaminophen—Schedule II - Combinations of Opioids
Oxycodone with aspirin tablets—Schedule II - Combinations of Opioids
Oxymetholone—Schedule III - Anabolic Steroids
Oxymorphone—(Numorphan)—Schedule II - Opioid Narcotics
Oxymorphone—Schedule II - Opioid Narcotics

P

Pantopon—(Hydrochlorides, opium alkaloids)—Schedule II - Opioid Narcotics
Para-fluorofentanyl—Schedule I - Opiates
Parahexyl(Synhexyl)—Schedule I - Hallucinogenic Substances
Paraldehyde—Schedule IV
Paregoric—Schedule III - Opium Narcotics
Pediacof Cough Syrup—Schedule V
Pemoline—Schedule IV - Stimulants
Pentobarbital (Nembutal)—Schedule II - Depressants
Percodan—Demi tablets—Schedule II - Combinations of Opioids
Percodan Tablets—Schedule II - Combinations of Opioids
Pethidine—Schedule II - Opioid Narcotics
Pethidine-Intermediate-A 4cyano-1-methyl-4-phenylpiperidine—Schedule II - Opioid Narcotics
Pethidine-Intermediate-B ethyl-4-phenylpiperidine-4-carboxylate—Schedule II - Opioid Narcotics
Pethidine-Intermediate-C 1 methyl-4-phenylpiperdine-4 carboxylic acid—Schedule II - Opioid Narcotics
Peyote—Schedule I - Hallucinogenic Substances
Phenadoxone—Schedule I - Opiates
Phenampromide—Schedule I - Opiates
Phenaphen with Codeine—Schedule III - Opioid Narcotics, Codeine
Phenazocine—Schedule II - Opioid Narcotics
Phencyclidine —Schedule I - Hallucinogenic Substances
Phendimetrazine—Schedule III - Stimulants
Phenergan Codeine Syrup—Schedule V
Phenergan VC with Codeine Syrup—Schedule V
Phenergan with Codeine Syrup—Schedule V
Phenhist DH with Codeine Liquid—Schedule V
Phenmetrazine—Schedule II - Stimulants
Phenobarbital—Schedule III - Depressants
Phenomorphan—Schedule I - Opiates
Phenoperidine—Schedule I - Opiates
Phentermine—Schedule IV - Stimulants
Phentermine HCl—(Phentrol; Tora; Fastin; Obe-Nix; Obephen; Obrmine; Obestin-30; Phentrol 2; Unifast Unicells; Wilpowr; Adipex-P; Dapex-37.5 Ionamin; Parmine; Phentrol 4; Phentrol 5)—Schedule IV - Stimulants
Phenylacetone—other names include phenyl-2-propanone, P2P, benzyl methyl ketone and methylbenzylketone—Schedule II - Immediate Precursors
Phenylcodine—Schedule I - Opium Derivatives
Phenzine—Schedule III - Phendimetrazine
Pholcodine—Schedule I - Opium Derivatives
Piminodine—Schedule II - Opioid Narcotics
Pinazepam—Schedule IV - Depressants
Pipradrol—(Detaril; Gerodyl; Meratran; Pipradol)—Schedule IV - Stimulants
Piritramide—Schedule I - Opiates
Plegine—Schedule III - Phendimetrazine
Powdered opium—Schedule II - Opioid Narcotics
Prazepam—(Demetrin; Verstran; Centrax)—Schedule IV - Depressants
Prelu-2—Schedule III - Phendimetrazine
Primatene (P-Tablets)—Excluded products
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Psilocybin—Schedule I - Hallucinogenic Substances
Psilocyn—Schedule I - Hallucinogenic Substances
Pyrrolidine analog of phencyclidine (1-(1-phenylcyclohexyl)-pyrrolidine, PCPy, PHP—Schedule I - Hallucinogenic Substances

Q

Quazepam—Schedule IV - Depressants

R

Racemethorphan—Schedule II - Opioid Narcotics
Racemoramide—Schedule I - Opiates
Racemorphan—Schedule II - Opioid Narcotics
Raw opium—Schedule II - Opioid Narcotics
Raw opium extracts—Schedule II - Opioid Narcotics
Robitussin A.C. Syrup—Schedule V
Robitussin-DAC Syrup—Schedule V
Rolatuss with Hydrocodone—Schedule III - Opioid Narcotics, Hydrocodone
Ru-Tuss with Hydrocodone Liquid—Schedule V
Ryna-CX Liquid—Schedule V

S

Secobarbital—Seconal—Schedule II - Depressants
Slyn-LL—Schedule III - Phendimetrazine
SPA-1(-)—1-Dimethylamino-1,2-Diphenylathane—Schedule IV - Stimulants
Stanolone—Schedule III - Anabolic Steroids
Stanozolol—Schedule III - Anabolic Steroids
Statobex—Schedule III - Phendimetrazine
S.T. Forte Liquid 2—Schedule III - Opioid Narcotics, Hydrocodone
Sufentanil—Schedule II - Opiates
Sufentanil—(Sufenta)—Schedule II - Opioid Narcotics
Sulfomethane—Schedule III - Depressants
Sulfondiethylmethane—Schedule III - Depressants
Sulfonethylmethane—Schedule III - Depressants

T

Talbutal—Schedule III - Depressants
Talwin—Pentazocine—all forms and all salts—Schedule III - Opioid Narcotics
Tedral—Excluded products
Tedral Elixir—Excluded products
Tedral Suspension—Excluded products
Tedral Sustained Action—Excluded products
Tedrigen—Excluded products
Temazepam—(Myolastin, Restoril)—Schedule IV - Depressants
Testolactone—Schedule III - Anabolic Steroids
Testosteronepropionate—Schedule III - Anabolic Steroids

Tetrahydrocannabinols —Schedule I - Hallucinogenic Substances

Tetrazepam—Schedule IV - Depressants

Thebacon—Schedule I - Opium Derivatives

Thebaine—Schedule II - Opioid Narcotics

Thenylfentanyl,N-[1-(2-thienyl) methyl-4-piperidyl] N-phenylpropanamide—Schedule I - Opiates

Theophed—Excluded products

Thiofentanyl,-N-[1-(2-thienyl) ethyl-4-piperidinyl]-phenylpropanamide—Schedule I - Opiates

Thiophene analog of phencyclidine (1-(1-(2-thienyl) cyclohexyl) piperdine, TCP, TPCP)—Schedule I - Hallucinogenic Substances

Tilidine—Schedule I - Opiates

Tolu-Sed Cough Syrup—Schedule V

Trenbolone—Schedule III - Anabolic Steroids

Triacin C Syrup—Schedule V

Triafed with Codeine—Schedule V

Triaminic Expectorant DH—Schedule III - Opioid Narcotics, Hydrocodone

Triaminic Expectorant with Codeine—Schedule V

Triazolam—(Halcion)—Schedule IV - Depressants

Trimcaps—Schedule III - Phendimetrazine

Trimeperidine—Schedule I - Opiates

Trimstat—Schedule III - Phendimetrazine

Trimtabs—Schedule III - Phendimetrazine

Tussanil DH Syrup—Schedule III - Opioid Narcotics, Hydrocodone

Tussar 2 Cough Syrup—Schedule V

Tussar SF Cough Syrup—Schedule V

Tussgen—Schedule III - Opioid Narcotics, Hydrocodone

Tussionex—Schedule III - Opioid Narcotics, Hydrocodone

Tussi-Organidin Liquid—Schedule V

Tussirex with Codeine Liquid—Schedule V

Tylenol with Codeine #1, 2, 3, and 4—Schedule III - Opioid Narcotics, Codeine

Tylenol with Codeine Elixir—Schedule V

Tylox Capsules—Schedule II - Combinations of Opioids

V

Vanex-HD Liquid—Schedule III - Opioid Narcotics, Codeine

Vicks Inhaler—Excluded products

W

Weh-less—Schedule III - Phendimetrazine

Wehless 105-Timecells—Schedule III - Phendimetrazine

Weightrol—Schedule III - Phendimetrazine

Non-representation of those too poor to pay *is* indecent. We believe that all people have rights both implied and explicit. We celebrate people in their sovereignty. Such is the promise of democracy....

- Barbara Jordan

1995

Defending Drug Cases

- ♣ Right to Test
- ♣ Pretrial Motions
- ♣ Defense Strategies
- ♣ Double Jeopardy
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- ♣ Instructions
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The kilos have a law of their own.

- Albert Kreiger

The intent of this article is twofold. First, it will remind trial attorneys that drug cases are triable and contain numerous legal issues. Consequently these cases must be aggressively prepared at the pretrial stage and then actually tried by jury. Second, the format is designed to take attorneys through, step-by-step, the defense of drug cases. However, the article should not be used as a substitute for the trial attorney taking the time to exhaustively research each legal issue in a given case.

Right to Test

Defense counsel should always consider having the alleged drug examined by someone other than the prosecution's expert. *James v. Commonwealth*, 482 S.W.2d 92 (Ky. 1972), recognized a defendant's right to independently analyze the alleged drug. Subsequent cases have reiterated this right and stated "the right to testing is implicit under RCr 7.24." *Green v. Commonwealth*, 684 S.W.2d 13, 16 (Ky.App. 1984). Funding for defense testing would be covered under KRS 31.185 and 31.200.

If the drug sample was consumed in testing by the prosecution's expert then a motion to dismiss and/or a motion to suppress the results generated by the state's expert should be made. Rely in part on *Green v. Commonwealth*, 684 S.W.2d 13, 16 (Ky.App. 1984), which states, "we hold the unnecessary (though unintentional) destruction of the total drug sample, after the defendant stands charged, renders the test results inadmissible, unless the defendant is provided a reasonable opportunity to participate in the testing, or is provided with the notes and other information incidental to the testing, sufficient to enable him to obtain his own expert evaluation."

Failure to move for independent testing can hurt the defense in other ways. For example, in *Sargent v Commonwealth*, 813 S.W.2d 801, 802 (Ky. 1991) the defense contended that the prosecutors had not given to the defense the laboratory reports of the marijauna. The defendant announced "ready" and "the trial judge ... [found] that the Commonwealth had substan-

tially complied with the discovery order and that Donald Sargent had suffered no prejudice because he did not move for independent testing of the marijuana." However, three Justices in dissent stated, "in announcing ready, the defense was perfectly justified in believing that the Commonwealth had complied with the express order of the court, that there was no undisclosed scientific evidence." *Id.* at 803.

In *Howard v. Commonwealth*, 787 S.W.2d 264 (Ky.App. 1990), the Commonwealth failed to produce the marijuana which was allegedly possessed by the appellant for purposes of sale. "In this case no marijuana was seized by the Commonwealth. Appellant was observed entering Hilltopper Billiards carrying a paper bag of sufficient size to contain a pound of marijuana. He was taped offering to sell Drake Jenkins a pound of marijuana for $1,600. Jenkins declined to buy because of the price, asking the appellant if he had any cheaper. The appellant replied that he did, but that he would have to deliver it later that evening because he didn't have the cheaper grade with him. The police did not arrest appellant at this time because of the on-going investigation which they did not wish to jeopardize by making an arrest. As a result thereof, no marijuana was seized.... We do not, therefore, read *Jacobs* to require the Commonwealth to produce an actual physical sample of the controlled substance as that was not the issue addressed to the Court." *Id.* at 265-266.

Pretrial Motions

Suppression. Most all drug cases involve some suppression issue. Search and seizure motions should always be considered under the Fourteenth Amendment to the United States Constitution and Section 10 of the Kentucky Constitution. Additional authority can often be found under the Kentucky Rules of Evidence and should be included in any suppression motion. This article will not attempt to cover the wealth of law in this area but the trial attorney must always be alert to suppression issues.

Priors. Good aggressive defense practice requires that the defense attorney always review the validity of prior convictions. Drug cases may involve prior convictions in three different settings. They are as follows: persistent felony offender, subsequent offender, and truth in sentencing. The recent case of *Webb v. Commonwealth*, 904 S.W.2d 226 (Ky. 1995), has made it more difficult to challenge prior convictions, at least, in cases involving persistent felony offender charges. The court in *Webb*, however, never specifically overruled *Commonwealth v. Gadd*, 665 S.W.2d 915 (Ky. 1984). *Gadd* recognized the right in Kentucky to question the validity of a prior conviction by pretrial motion.

Boykin v. Alabama, 395 U.S. 238, 89 S.Ct. 1709, 23 L.Ed 2d 274 (1969), held that there would be no presumption from a silent record of the waiver of three important federal constitutional rights, (1) the privilege against self-incrimination, (2) the right to trial by jury, and (3) the right to confront one's accusers. Quoting *McGuire v. Commonwealth*, 885 S.W.2d 931 (Ky. 1994), the *Webb* court stated, "Kentucky trial courts are no longer required to conduct a preliminary hearing into the constitutional underpinnings of a judgement of conviction offered to prove PFO status unless the defendant claims 'a complete denial of counsel in the prior proceeding.' ...The appropriate remedy to challenge...[prior] guilty pleas is through a RCr 11.42 proceeding and then the respondent 'may ...apply for reopening of any...sentence [thus] enhanced.'" *Webb*, 904 S.W.2d at 229. However, in *Woods v. Commonwealth*, 793 S.W.2d 809 (Ky. 1990), the court held a prior guilty plea constitutionally defective because the court did not canvass *Boykin* rights with the defendant at the time of the plea even though the state rule permitted a plea of guilty in absentia prosecution for a misdemeanor.

Defense counsel should keep in mind that *Webb* was only addressing the attack on a prior used in a persistent felony offender proceeding. Therefore the Court has not specifically ruled on the issue of whether such attacks of prior convictions would be appropriate as to subsequent offenders status or in a truth in sentencing proceeding. To the extent that *Webb* is controlling in this area then defense counsel still must investigate pretrial the validity of prior convictions which are to be used in persistent felony offender, subsequent offender, and truth in sentencing proceedings. Consideration must then be given to challenging these prior convictions by way of filing a motion pursuant to RCr 11.42.

Informant. Many drug cases involve the use of an informant. In the event that the informant is an eye witness then defense counsel is entitled to the name and address of the informant under *Burks v. Commonwealth*, 471 S.W.2d 298 (Ky. 1971). The court noted that, "the significant point is that when an informer participates in or places himself in the position of observing a criminal transaction he ceases to be merely a source of information and becomes a witness." *Id.* at 300. The *Burks* court also noted that the "better practice [is] to raise the question by pre-trial motion ...." *Id.* at 301.

Even if the informant is not an eyewitness the defense may be entitled to the identity of the informant. In *Roviaro v. United States*, 353 U.S. 53, 77 S.Ct. 623, 1 L.Ed.2d 639 (1957), the court discussed whether a defendant charged under federal criminal laws was entitled to the name of an informant. The court was sympathetic to the defense position and noted, "His testimony might have disclosed an entrapment. He might have thrown doubt upon petitioner's identity or on the identity of the package. He was the only witness who might have testified to petitioner's possible lack of knowledge of the contents of the package that he 'transported' from the tree to John Doe's car. The desirability of calling John Doe as a witness, or at least interviewing him in preparation for trial, was a matter for the accused rather than the Government to decide." *Id.* at 629.

KRE 508 specifically deals with the identity of an informer. Under KRE 508 (c)(2), "[i]f the court finds that there is a reasonable probability that the informer can give relevant testimony, and the public entity elects not to disclose his identity, in criminal cases the court on motion of the defendant or on its own motion shall grant appropriate relief, which may include one (1) or more of the following: (A) Requiring the prosecuting attorney to comply; (B) Granting the defendant additional time or continuance; (C) Relieving the defendant from making disclosures otherwise required of him; (D) Prohibiting the prosecuting attorney from introducing specified evidence; and (E) Dismissing charges."

One published decision regarding identity of informants, is *Commonwealth v. Balsley*, 743 S.W.2d 36 (Ky.App. 1988) which was decided prior to KRE 508. The trial court ordered the identity of the informant to be disclosed for two separate reasons. The informant was a material witness. Also, the court ordered disclosure because, "this Judge is not satisfied that such information was received from a reliable informant, and in my judgement, the disclosure is required." *Id.* at 38. The detective's affidavit in support of the search warrant "was substantially similar or exactly the same as the 35 previous affidavits submitted by this officer in search warrant applications." *Id.* "[T]his and other disturbing elements of the investigation" supported the trial judge's ruling.

Surveillance Privilege. Kentucky has also addressed the so called "surveillance location privilege." A trial court had precluded a defendant from questioning an officer about the officer's precise location at the time of surveillance. "Jett never demonstrated a need to know the exact location of the surveillance post. He presented no evidence that there was some reason to believe Officer Russo's view was obstructed or that the street lighting was poor at any particular vantage point. On the other hand, Officer Russo's testimony was clear and positive in identifying Jett as the person involved in these criminal activities. The officer further testified that the light and weather were good... While we conclude that a surveillance location privilege should exist in Kentucky, *we recognize a need to apply it only in those cases where it is justified.* We determine that the conflicting interest of need to restrict and need to know or a right to cross-examine were properly balanced in this case. Prior to trial, Jett moved to obtain the information in order to examine the location. The Commonwealth opposed the motion because it would compromise the location for future use and jeopardize the safety of the property owners... We agree with the result in this case." *Jett v. Commonwealth*, 862 S.W.2d 908, 910 (Ky.App. 1993) (emphasis added).

Defense Strategies

Lack of knowledge is a viable defense when prosecutors and police officers seek to charge everyone in a dwelling while a search warrant is being executed, all occupants of an automobile which contained drugs, or persons who happened to be on a street corner where drugs are found nearby. In *Carr v. Commonwealth*, 481 S.W.2d 91 (Ky. 1972), the evidence was insufficient to sustain the conviction of an automobile passenger. The defendant "was a

passenger; he had driven the automobile on occasion; he was a friend of the [co-defendant]." There is no direct evidence that he knew the drugs were in the automobile, that he used such drugs, that he pushed or sold such drugs on this occasion or at any other time, or that he knew that the [co-defendant] did. [The defendant] is linked to the drugs by a Siamese integument leading to a two-headed body of suspicion and innocence, not a live, normal, squawling conviction. There is no direct evidence that he had possession or control of the drugs." *Id.* at 92.

Misidentification is a major defense in drug cases. Drug cases, in particular, are ripe for that defense because so many cases are a result of undercover operations and informants. Anytime there is a gap between the time of the alleged incident and the arrest then consideration must be given to the use of a misidentification defense. This defense succeeds more frequently when used in combination with an alibi. Keep in mind that Kentucky does not require the defense to give notice of an alibi defense. Under KRS 500.070(2), "No court can require notice of a defense prior to trial time."

Lack of possession is often used in drug cases. In *Paul v. Commonwealth*, 765 S.W.2d 24 (Ky. App. 1989), four persons were in an automobile that was pulled over for speeding. The detective approached the vehicle and observed a small amount of marijuana at the driver's feet and two marijuana roaches in the dashboard ashtray. He also smelled marijuana inside the car. The defendant was sitting in the back seat on the right side and the owner of the vehicle was sitting in the front seat on the right side. "[P]erson who owns or exercises dominion or control over a motor vehicle is deemed to be the possessor of any contraband discovered inside it." *Id.* at 26. "[A] person's mere presence in the same car with a criminal offender does not authorize an inference of participation in a conspiracy... The probable cause requirement is not satisfied by one's mere propinquity to others independently suspected of criminal activity." *Id.* The denial of the motion to suppress was reversed and the case remanded.

In *Leavell v. Commonwealth*, 737 S.W.2d 695 (Ky. 1987), there was evidence that the defendant was in possession of the ignition key to an automobile which had 90 pounds of marijuana in the trunk. The evidence supported a finding that the defendant was in constructive possession of the marijuana, notwithstanding the fact that the key he had would not open the doors or trunk of the car. The owner of the car who had given the defendant the key testified that it was his intention to transfer possession of the marijuana over to the defendant and that they had used this method of transfer on previous occasion. "The person who owns or exercises dominion or control over a motor vehicle in which contraband is concealed, is deemed to possess the contraband." *Id.* at 697.

The court held in *Coker v. Commonwealth*, 811 S.W.2d 8 (Ky.App. 1991), that the evidence was insufficient to sustain the co-defendant's conviction for trafficking in cocaine or possession of drug paraphernalia. She was not named in the search warrant or the affidavit supporting the search warrant. The "evidence fell well short of establishing that this appellant exercised dominion and control over the premises at the time they were searched and the evidence seized." *Id.* at 10.

In another case, *Clay v. Commonwealth*, 867 S.W.2d 200 (Ky.App. 1993), the court found that it was not clearly unreasonable for a jury to believe that the defendant constructively possessed cocaine which was found in her house, although a co-defendant claimed ownership of the cocaine and said it was for his personal use only. Three ounces of cocaine were found in the defendant's kitchen and bathroom, measuring scales and baggies were found in the kitchen, over $11,000 was found in the defendant's purse, police detectives testified that cocaine is generally sold on the street in quantities of one gram or less, handguns and ammunitions were found in the home, and the defendant possessed unexplained wealth. *Id.* at 202.

No one was on the premises when a search warrant was executed in *Hargrave v. Commonwealth*, 724 S.W.2d 202 (Ky. 1987). It was the defendant's home and a week after the search the defendant turned himself in to the police. "'Possession' sufficient to convict under the law need not be actual; 'a defendant may be shown to have had constructive possession by establishing that the contraband involved was subject to his dominion or control.'" *Id.* at 203.

In *Rupard v. Commonwealth*, 475 S.W.2d 473 (Ky. 1972), "[t]he circumstances presented in this case support a rational inference that these appellants had constructive possession and probably actual possession of the marijuana which was found in the abandoned farmhouse. The owner of the house testified that he had not authorized either of the appellants to use the house. One of the officers saw the appellants go upon the porch of the house as if to enter; both of the officers saw the appellants coming from the direction of the house to their car and noted that one of them appeared to be deeply affected as if under the influence of a narcotic. Marijuana was found in their automobile in plain view. When the officers returned to the house, they discovered that another batch of marijuana had been bagged and the scales had been moved from the position where the officers had seen them earlier. The circumstances suffice to support the rational inference that these appellants indeed had dominion and control of the marijuana in the abandoned house; hence, it was appropriate for the trial court to admit the contraband material into evidence." *Id.* at 475-476.

There was a two story building containing a club on the first floor and an apartment on the second floor in *Dawson v. Commonwealth*, 756 S.W.2d 935 (Ky. 1988). A search revealed a number of pills in the apartment area. The defendant claimed to have moved several months earlier. The court held the defendant "exercised dominion and control over the premises sufficient to establish constructive possession." *Id.* at 936. The search revealed 1) numerous letters addressed to the defendant, 2) identification card with his picture, 3) insurance papers in his name and bills belong to him, 4) male clothing and 5) water and electricity, telephone, cable TV and postal service registered in his name. The gas bill was transferred to the name of a co-defendant five months after the defendant claimed to have moved from the apartment. There was also testimony that the defendant regularly left the club between 4:30 and 4:45 a.m. even though the bar was closed and no one else was there at those times.

In *Powell v. Commonwealth*, 843 S.W.2d 908 (Ky.App. 1992) the court held "that the definition of possession set forth in KRS 500.080 (14) is the proper definition to be contained in the jury instructions for cases arising under KRS 218A." *Id.* at 910. The court recognized that the "instruction actually given by the trial Court appear[ed] to authorize conviction because the items in questions were *possibly* within the Appellant's constructive possession, rather than *actually* being within his dominion and control. The definition of constructive possession given under KRS 500.080 (14) clearly sets forth the actual dominion and control requirement." *Id.*

Possession v. Trafficking. In many drug cases the issue is possession versus trafficking. Numerous possession charges, depending on the drug in question, are misdemeanors. Conviction on a misdemeanor avoids a felony record, prison time, and a persistent felony offender charge. The search of an apartment in *Dawson v. Commonwealth*, 756 S.W.2d 935 (Ky. 1988), yielded 19 Demorals, 12 Percodans, 18 Talwins and 4 Valiums. The Talwin tablets were in the ceiling. "The number of pills which constitute a quantity that is inconsistent with personal use has not been legally or medically defined." *Id.* at 936. "Here there was a large quantity of drugs not found in any labeled prescriptions container with the Talwin tablets concealed behind aluminum foil covering the ceiling. The mere possession of several controlled substances not in prescription containers is sufficient to sustain a charge of unlawful possession of a controlled substance. The fact that some of the controlled substances were in nightstands and other easily discernible places but one substance was secreted and hidden in a cache in the ceiling is so incongruous as to justify a jury to believe that the particular substances was possessed, not for personal use, but for the purpose of sale." *Id.* at 936.

The court found the evidence sufficient to support a conviction for cocaine trafficking in *Green v. Commonwealth*, 815 S.W.2d 398 (Ky. 1991). "In the course of the arrest, the black pouch was discovered several feet from him. It contained $75 and 35 small bags of cocaine. Al-

though only one of the arresting officers actually saw the pouch fall from appellant's hand, such evidence was sufficient to create an issue of fact for the jury." *Id.* at 399.

In *Faught v. Commonwealth*, 656 S.W.2d 740 (Ky. 1993), "the seizure from appellant of 4.7 grams of cocaine, and apparatus used to sift cocaine, and a bag of Manitol together with Detective Bledsoe's testimony that cocaine is normally sold by the gram sufficiently raises a jury question of whether appellant possessed the cocaine with intent to sell." *Id.* at 742.

In marijuana cases a presumption can be found in KRS 218A.1421 (5). That statute states, "the unlawful possession by any person of eight (8) or more ounces of marijuana shall be prima facie evidence that the person possessed the marijuana with the intent to sell or transfer." Notwithstanding this statute defense counsel must keep in mind that the jury is never informed of the presumption. The presumption merely allows the Commonwealth to meet its burden of overcoming a motion for a directed verdict of acquittal so that the case can be submitted to the jury.

Definitions for "sell," "traffic," and "transfer" can be found in KRS 218A.010 (22), (24), and (25).

As shown by the aforementioned cases, quantity is an important factor in the argument to a jury that the drugs in question were possessed for personal use and not for sale.

Quantity. Apart from being a major factor in determining possession versus trafficking, the quantity in question is not significant other than in marijuana cases. In *Commonwealth v. Shivley*, 815 S.W.2d 572 (Ky. 1991), "A state forensic chemist testified at the hearing that the test tube and pipe contained cocaine. The residue could not be accurately weighed, but it was stipulated that a sufficient amount of the residue remained available for testing." *Id.* The trial court adopted the reasoning of the California Supreme Court and applied "usable quantity" approach. The Supreme Court held that "[n]either statute determines any amount of cocaine which may be possessed legally. Cocaine residue is, in fact, cocaine and we find no argument to the contrary." *Id.* at 573. "[P]ossession of cocaine residue (which is cocaine) is sufficient to entitle the Commonwealth's charge to go to a jury when there is other evidence or the inference that defendant knowingly possessed the controlled substance." *Id.* at 574.

Penalties are different under KRS 218A.1421 for trafficking in marijuana depending upon whether the quantity is less than 8 ounces, 8 ounces or more but less than 5 pounds, or 5 pounds or more.

Entrapment/outrageous police conduct is often times a viable defense in drug cases. As to state law on entrapment, one needs to consult KRS 505.010 for the specific elements. The entrapment defense was addressed in *Fuston v. Commonwealth*, 721 S.W.2d 734 (1986). "[A]ppellant testified the informant came to his house 'pretty near' for about a week and a half and called him on the telephone frequently 'to talk me into doing it'." *Id.* at 735. The trial court instructed on entrapment as to the detective but not the informant. "However, in addition to the previous sales to the undercover officer, the appellant admitted that he had made 15 or 20 other sales of small quantities of marijuana '[w]ithin the last three months, probably. '...Our statute reflects the view that the defense of entrapment is available only in those instances in which a police officer or his confederate implants in the mind of an innocent person, the disposition to violate the law, not in those instances in which a person already having in mind to violate the law is induced to do so again." *Id.* Other cases on the entrapment defense in state court are as follows:

1) *Armstrong v. Commonwealth*, 517 S.W.2d 233 (Ky. 1975),

2) *Schmidt v. Commonwealth*, 508 S.W.2d 716 (Ky. 1974),

3) *Dumond v. Commonwealth*, 488 S.W.2d 353 (Ky. 1973), and

4) *Shanks v. Commonwealth*, 463 S.W.2d 312 (Ky. 1971).

The entrapment defense may also be supported by federal constitutional law. In *U.S. v. Russell*, 411 U.S. 423, 431-432, 93 S.Ct. 1637, 1643, 36 L.Ed.2d 366 (1973), the court addressed the entrapment defense. "While we may someday be presented with a situation in which the conduct of law enforcement agents is

so outrageous the due process principles would absolutely bar the government from invoking judicial processes to obtain the conviction, c.f. *Rochain v. California*, 342 U.S. 165, 72 S.Ct. 205, 96 L.Ed. 183 (1952), the instant case is distinctly not of that breed." 411 U.S. at 431-432, 93 S.Ct. at 1643.

Insanity. Another possible defense in a drug case is an insanity defense. A leading case in this area is *Tate v. Commonwealth*, 893 S.W.2d 368 (Ky. 1995). In that case the defendant was convicted of possession of a controlled substance, robbery and of being a persistent felony offender. The issue addressed by the court was "whether drug addiction is a mental disease, defect or illness for purposes of KRS 504.020." *Id.* at 369. "We hold that a mere showing of narcotics addiction, without more, does not constitute 'some evidence' of mental illness or retardation so as to raise the issue of criminal responsibility, requiring introduction of the experts controversial testimony or an instruction to the jury on that issue. Due to the fact that *no evidence was presented that Tate was in need of a fix at that time*, there was an absence of the requisite evidence that at the time of the act charged. Tate had an abnormal condition of the mind which substantially impaired his behavior. In this case, the weight of the evidence was to the contrary as appellee's attempts to obtain money legally and the arresting officers' testimony showed appellee's lucidity at time of arrest." *Id.* at 372 (emphasis added). "Therefore, the trial court did not err in excluding Dr. Pelligrini's testimony on the grounds of lack of relevancy as no *probative* evidence was offered which a jury could reasonably infer that at the time of the criminal act, *as a result of mental illness or retardation*, appellee lacked substantial capacity to either appreciate the criminality of his acts or to conform his conduct to the requirements of law." *Id.* at 373.

Double Jeopardy

The Kentucky constitution's double jeopardy prohibition precludes the conviction of a defendant both for selling marijuana to a minor and for trafficking within 1000 yards of a school. See *Ingram v. Commonwealth*, 801 S.W.2d 321 (Ky. 1990).

In *Commonwealth v. Grubb*, 862 S.W.2d 883 (Ky. 1993), the court held that "[a] single sales transaction between the same [people] at the same time and place which violates a single statutory provision does not justify conviction or a sentence for separate crimes, even though more than one item of a controlled substance (of the same schedule) is involved." *Id.* at 884. Otherwise, a single criminal transaction could be divided into multiple offenses based only on the total number of pills which were involved. The court reaffirmed the test in *Ingram* because this case involved a single impulse or act which had no compound consequence and Section 13 of the Kentucky Constitution does not permit a single episode to be punished as multiple offenses. Here, the defendant sold Percodan and Dilaudid (schedule 2 narcotics) in one transaction on January 9, 1990 to undercover police officers. Simultaneous possession or sale of more than one of the controlled substances enumerated *in the same schedule* constitutes only one offense.

In *Carter v. Commonwealth*, 782 S.W.2d 597 (Ky. 1990), the jury returned a verdict on both trafficking and possession of LSD. The trial court advised the jury to correct the verdict and convict on only one. "Applicable double jeopardy principles do not preclude Carter's *conviction* for both offenses, only his *punishment* for both." *Id.* at 601. "The trial court could have simply set aside the verdict for the lesser offense." *Id.* at 602.

Police Officer Testimony

Several cases hold that a police officer can be an "expert." These cases, of course, open up the door to the defense obtaining an expert as well. Additionally the Commonwealth must lay a proper foundation in each case to qualify the police officer as an expert.

The defense can argue under RCr 7.24 that the defense is entitled to the expert's opinion before trial.

Kroth v. Commonwealth, 737 S.W.2d 680 (Ky. 1987), allowed a police officer to testify that "a large quantity indicated that they were for sale, not personal use, based on his ten years of experience as a narcotics officer." *Id.* at 681.

In *Howard v. Commonwealth*, 787 S.W.2d 264 (Ky.App. 1990) the trial court allowed a detective to "testify concerning the meaning of certain words used in the conversation between

appellant and Jenkins on the theory that they were using 'drug language' not readily understood by the average juror.... We find nothing wrong with the Commonwealth presenting evidence interpreting drug language as it assisted the jury in understanding the taped conversations." *Id.* at 265.

Two police officers were allowed to testify as experts that it was their opinion that the nearly 15 pounds of marijuana seized were for sale not for personal use in *Sargent v. Commonwealth*, 813 S.W.2d 801 (Ky. 1991). Three justices in dissent stated, "such testimony constitutes an egregious usurpation of the function of the jury. Rather than perpetuating the flawed holding in *Kroth v. Commonwealth*, Ky., 731 S.W.2d 680 (1987), we ought today to seize the opportunity to overrule it." *Id.* at 803. In *Cooper v. Commonwealth*, 786 S.W.2d 875 (Ky. 1990), the court allowed a police officer to testify that the location of a drug transaction was within 1000 yards of a school. The court noted that the officer's testimony was not challenged.

Instructions

Instructions in the case of *Morrison v. Commonwealth*, 607 S.W.2d 114 (Ky. 1980) allowed the jury to convict the defendant if she "knew or could have known" that the prescription was forged. *Id.* at 115. "The phrase 'could have known' is to nebulous and all-inclusive and there is no conceivable way that its inclusion could be justified under the statute." *Id.* The judgment was reversed. As previously discussed, the case of *Powell v. Commonwealth*, 843 S.W.2d 908 (Ky.App. 1992), adopts the definition of possession as set forth under KRS 500.080 (14) for cases arising under KRS Chapter 218A.

Severance

In *Harris v. Commonwealth*, 869 S.W.2d 32 (Ky. 1994), a defendant was charged jointly in one count with a co-defendant for trafficking in cocaine. The co-defendant was also charged with a second separate trafficking offense. The trial judge denied the motion for severance. In reversing the conviction, the appellate court stated, "knowing that there was evidence that Harris had trafficked in narcotics on a different occasion made it more likely for the jury to infer that the allegation against Walker were true. We believe that this association demonstrated prejudice against Walker, and therefore reverse." *Id.* at 34.

Chain of Custody

In *Commonwealth v. Hubble*, 730 S.W.2d 532 (Ky.App. 1997), the court made clear that "the Commonwealth has the burden of identifying and tracing the chain of custody from the defendant to its final custodian." *Id.* at 534. In *Faught v. Commonwealth*, 656 S.W.2d 740 (1983), the court was "satisfied that the substances introduced at trial were taken from appellant's possession and that the Commonwealth satisfied its burden of proving the evidence was securely stored under reliable procedures in storage facilities provided for that purpose." *Id.* at 741.

Closing Argument by Prosecutor

The prosecutor in *Whisman v. Commonwealth*, 667 S.W.2d 394 (Ky.App. 1994), made remarks about drug dealers in the community and the abuse of drugs by children. "While these remarks give a first-blush impression of being improper because there is no factual basis for them in the record, we cannot give any in-depth consideration because they were not objected to, so they were *not preserved for appellate review*." *Id.* at 398 (emphasis added).

Court's Discretion to Void Conviction

Under KRS 218A.275(9) an individual "convicted for the first time of possession of controlled substances" can ask the court to later set aside and void the conviction. A similar statute for possession of marijuana is KRS 218A.276 (8). Furthermore, KRS 218A.010 (21), states that "[f]or the purposes of [second or subsequent offense] a conviction voided under KRS 218A.275 or 218A.276 shall not constitute a conviction under this chapter."

Other Considerations

Collateral Activity. Kentucky law continues to firmly discourage the use of collateral criminal activity at trial in any case, including drug cases. In *Powell v. Commonwealth*, 843 S.W.2d 908 (Ky.App. 1992), "[i]f appellant had been charged with trafficking in cocaine, the evidence concerning the alleged drug transactions

in Tennessee would obviously be relevant. However, since the appellant was charged with mere possession of cocaine, the only transaction with any possible relevance to that charge was the last one, which occurred within a week of the date of the seizure, if the evidence shows that it was cocaine that was seized. ...We find that the appellant's motion in limine should have been sustained, with the possible exception of the last transaction." *Id.* at 911.

The court in *Jett v. Commonwealth*, 862 S.W.2d 908 (Ky.App. 1993) held that "[i]t is within the sound discretion of the trial judge to determine whether the probative value of evidence is outweighed by its possible prejudicial effect and to be admit it or exclude it accordingly" in reference to cash and a beeper that the defendant was carrying when he was arrested. *Id.* at 911. The court further found that it was appropriate for the trial court to admonish the jury when a police officer referred to the defendant in testimony as a drug dealer.

In *Clay v. Commonwealth*, 867 S.W.2d 200 (Ky. App. 1993), the court noted that the possession of a large amount of money by itself is not an indicia of criminality, but under the circumstances of the case, its introduction into evidence was proper. Furthermore, police officers executed a search warrant for drugs, and videotaped the scene and seizure of cash, guns and drugs. While upholding the admissibility of the videotape the court pointed out that the same standard applies which governs the admissibility of photographs. The introduction of such evidence requires the trial court to consider whether the probative value of the evidence outweighs its prejudicial effect.

Enhancement. A prior conviction for possession of marijuana cannot be used to enhance subsequent offenses of trafficking in cocaine and marijuana. See *Woods v. Commonwealth*, 793 S.W.2d 809 (Ky. 1990). "Second or subsequent offense" is defined by KRS 218A.010(21).

Child Abuse. In *Commonwealth v. Welch*, 864 S.W.2d 280 (Ky. 1993), the defendant was convicted of possession of a controlled substance, possession of drug paraphernalia and criminal child abuse. "The General Assembly intends no additional criminal punishment for the pregnant woman's abuse of alcohol and drugs apart from the punishment imposed upon anyone caught committing a crime involving those substances." *Id.* at 284. The criminal abuse conviction was vacated.

Tapes. The court in *Norton v. Commonwealth*, 890 S.W.2d 632 (Ky.App. 1994) reiterated that it is within the discretion of the trial court to determine whether tape recordings should be excluded due to the quality of the sound.

Paraphernalia. Many times defendants are charged with possession of drug paraphernalia along with other charges. A first offense is a class A misdemeanor. Any plea bargain should be structured to avoid a guilty plea to the charge of possession of drug paraphernalia since a subsequent offense of possession of drug paraphernalia will be a class D felony. See KRS 218A.500(5).

Firearm. Being "in possession of a firearm" while violating KRS Chapter 218A results in penalty enhancement. See KRS 218A.992. Sentence enhancement does not occur for violation of KRS 218A.210, possession of controlled substances while not in the original container.

Forfeiture. Real property may not, consistent with the fifth amendment's due process clause, be seized pursuant to a civil drug forfeiture statute [21 U.S.C. 881 (a)(7)] until the property owner has been given notice and an opportunity to be heard, unless the government is able to demonstrate exigent circumstances establishing the need for an immediate seizure of the property. *United States v. James Daniel Good Real Property*, 510 U.S. ___, 114 S.Ct. 492, 126 L.Ed.2d 490 (1993).

Conclusion: Preparation

Nothing can substitute for preparation in trial work. In particular, drug cases have numerous factual and legal issues that require research and aggressive pretrial motion practice. This pretrial work coupled with the fact that drug cases are triable cases by their very nature leads one to the inescapable conclusion that favorable results at trial can be obtained in drug cases for our clients.

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Table of Cases for Smith Defending Drug Cases Article

Jerry Cox (left) of Mt. Vernon, received the Kentucky Association of Criminal Defense Lawyer's *Presidential Award* for his contribution as Chairman of the Life Membership Committee and KACDL Board Member during the year and **Ernie Lewis** (right) DPA's Directing Attorney in Richmond, received KACDL's *Frank E. Haddad, Jr. Award* for his outstanding contribution to the practice of criminal defense law in Kentucky. These awards were presented at the 9th Annual KACDL Criminal Defense Law Conference and Annual Meeting in Lexington on November 10, 1995. **Russ Baldani** (center), KACDL's outgoing President, presented the Awards.

Juror Questionnaires in Drug Cases

An expanded juror questionnaire saves court time by asking the basic but crucial background questions; it provides information on jurors who may have a hardship excuse or who may otherwise be disqualified.

A jury questionnaire specific to the case provides information from jurors on issues they find sensitive and wish to be taken up privately with the court and indicates those questions which would undoubtedly go unanswered in a *voir dire* group setting; it acts as a baseline to compare written answers with inconsistencies in their verbal answers to similar questions; it provides information on questions that need to be explored further.

The questionnaire gives a first glimpse of a juror's personality (handwriting, word choice, placement of answers, questions they choose not to answer or those they choose to answer more completely than others; and it gives a juror a first glimpse into specifics of the case in order to gauge their reactions to case themes (good and bad) and provides time to make minor adjustments and to help customize arguments.

The following is a questionnaire that could be used in a drug case. It appears at pp. 48-50 of Cathy E. Bennett & Robert B. Hirschhorn, *Bennett's Guide to Jury Selection and Trial Dynamics in Civil and Criminal Litigation* (1993).

****

JUROR QUESTIONNAIRE
Please Make Sure Your Answers Are Legible

1. Full Name: _____

2. Date of Birth: _____ Place of Birth: _____

3. City of Residence: _____ How Long at Current Residence: _____

   (A) Where else have you lived? _____
   _____
   _____

4. Current Occupation & Where Employed (If Unemployed or Retired, Your Usual Occupation):
   _____
   _____

   (A) Length of Employment: _____ (B) Do You Have Any Supervisory Responsibilities: _____ If Yes, Describe: _____
   _____

5. Have You Ever Served in the Armed Forces? _____

   (A) What Branch of Service & Rank? _____
   (B) Duties: _____
   (C) Place(s) of Service: _____

6. Current Status (Circle one): Single - Married - Divorced - Separated - Widowed - Living With Someone - Remarried

7. Please List Names, Ages, Educational Level and Occupations of Children:

_____

_____

_____

8. If Married or Living With Someone, What Is That Person's Educational Level and Current Occupation?

_____

_____

9. What Is Your Educational Level? _____ (A) If you Attended College or Vocational School, What School and What Was Your Major? _____

_____

10. What Jobs Have You Held in The Past? _____

11. Have Your or Any Member of Your Family Ever Hired an Attorney? _____
If Yes, What Was the Reason? _____

12. There Has Been a Lot of Publicity Lately About Crime in America. Have You Read or Seen Any of These Stories? If Yes, Please Tell Us What You Think About the Criminal Justice System.

_____

_____

13. Have You Ever Served on a Jury Before? _____ (A) If Yes, How Many Times? _____
(B) (Circle one or more) Criminal - Civil - Grand Jury
(C) What There a Verdict? _____

14. Have You, Any Member of Your Family or Close Friends Ever Been Involved in a Lawsuit? If Yes, (Circle one or more) Plaintiff - Defendant - Witness - Observer (A) Please describe:

_____

_____

15. Have You, Any Member of Your Family or Close Friends Ever Been the Victim of a Crime Such as, Assault, Murder, Robbert, Burglary, etc.? _____ If Yes, Tell Us About That:

_____

_____

16. What About You Will Make You a Good Juror? _____

_____

17. There Has Been a Lot of Publicity Lately About the "War on Drugs." How Do You Feel About the Drug Situation in the United States? _____

_____

_____

18. Have You, Any Member of Your Family or Close Friends Ever Worked in Any Alcohol or Drug Abuse Facility? _____ If Yes, Please Describe: _____

_____

_____

19. Have You Ever Donated Time or Money to M.A.D.D. (Mothers Against Drunk Driving), S.A.D.D. (Students Against Drunk Driving) or Any Crime Watch Group? _____ If Yes, Please Describe:

_____

20. Have Your, Any Members of Your Family or Close Friends Ever Worked in or Applied for a Position in Law Enforcement, District Attorney's Office or Any Other Law Enforcement Related Agency? _____ If Yes, When, Where and What Agency? _____

_____

_____

21. Have You Ever Taken Any Courses in or Worked in the Field(s) of Psychology, Drug or Substance Abuse Counseling, Law, Criminal Justice, Criminology or Other Related Areas? ____ If Yes, Please List the Courses You Took: _____

_____

22. What Clubs and Organizations Do You Belong to:

_____

_____

23. Have You Ever Wanted to Go Into Law Enforcement? _____ If Yes, Please Describe:

_____

_____

24. Is There Anything Else Which We Have Forgotten to Ask You That We Should Know About You? _____

_____

_____

****

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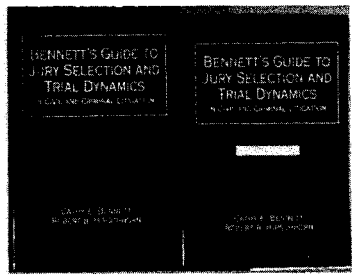

Robert Hirschhorn of Galveston, Texas is a 1981 graduate of St. Mary's University School of Law, and a jury and trial consultant since 1984 with *Cathy E. Bennett & Associates, Inc.* He is a National Criminal Defense College faculty member. Robert has been quoted number times in *USA Today* and the *New York Times*. He has been on ABC's *Good Morning America*, *CNN Morning News*, *Dateline NBC*, *48 Hours*, *Nightline*, *McNeil Lehrer*, *Oprah Winfrey Show* and national radio shows. Robert lectures throughout the United States to lawyers and judges on the art of jury selection. His cases include: *People v. Christian Brando*, Marlon Brando's son charged with murder; *People v. Raymond Buckey*, the McMartin day care case where the defendant was acquitted; *Florida v. William Kennedy Smith*, a sexual battery acquittal; *USA v. Brad Branch*, the Branch Divideon trial that resulted in a murder acquittal. His legal publications include: *Opening Statements*, 42 Mercer University Law Review 605 (1991); *How to Conduct a Meaningful Voir Dire in Criminal Cases*, 46 S.M.U. Law Review 659 (1992); *Bennett's Guide to Jury Selection and Trial Techniques in Civil and Criminal Cases* published by West Publishing Company (1993); *Bennett's Guide to Jury Selection and Trial Techniques in Civil Litigation*, California Division, published by West Publishing Company (1995).

Experimental Studies of the Acute Effects of Marijuana on Human Behavior

"Marijuana," (also spelled "marihuana") refers to the material produced by drying the plant, *Cannabis sativa*. *Cannabis* grows in a variety of climates, and has been cultivated for both commercial and pharmacological purposes. The fibers in the stem of *Cannabis* have been used to produce a rope-like material, known as hemp, which is used in a variety of products, including clothing and paper. *Cannabis* seeds also have commercial value, serving both as a source of oil that has been used in paints and varnishes, as well as birdseed. In addition to these commercial uses, the plant generates chemical compounds, called cannabinoids, that engender a variety of physiological and behavioral effects in humans. Some of these compounds, principally Δ^9-Tetrahydrocannabinol (Δ^9-THC), serves as a reinforcer that maintains the non-medical use of marijuana. Based on a 1991 survey of households, which was organized by the National Institute on Drug Abuse, marijuana is the most commonly used illicit drug in the United States. It is estimated that 3.1 million Americans use marijuana every day, with 4.8 percent of the population smoking marijuana for non-medical purposes at least once per month. A survey of high school students who graduated in 1991 indicated that 37% had smoked marijuana on at least one occasion, and 24% had used the drug during the previous year. The reasons for the initiation of and continued non-medical use of marijuana are complex, as are the medical and social consequences of marijuana use.

Many different chemical compounds (~ 600) have been found in *Cannabis*. Individuals who injest marijuana are exposed to these chemicals. Many of these chemical compounds are released in smoke when marijuana is burned, and several new compounds are also produced as marijuana is heated. The amounts of various chemical compounds found in smoke derived from marijuana depend on a number of factors, including the source of the marijuana, the relative contribution of various portions of the *Cannabis* plant contained in the marijuana, the age of the marijuana, and processes used to prepare the material. The chemical content of a samples of marijuana obtained from "street" sources vary markedly, and this variability has often contributed to confusion regarding marijuana and the effects it produces.

As mentioned above, compounds that are primarily associated with the behavioral and physiological effects engendered by marijuana are called cannabinoids. The concentration of cannabinoids determine the strength (*i.e.*, potency) with which marijuana produces its effects on behavior and CNS function. Δ^9-THC is the cannabinoid that produces the most potent behavioral effects, although others, such as cannabinol, cannabidiol and Δ^8-tetrahydrocannibonol, also produce behavioral and physiological effects. To date, over 80 different cannabinoids have been identified. Many other chemical compounds, such as proteins, sugars, alcohols, simple and fatty acids, hyrdocarbons, terpenes and phenols are also present in the *Cannabis* plant. Many of these substances are also found in the smoke produced by burning marijuana, as well as additional toxic substances, including carbon monoxide. Several known carcinogens, including benzypyrene and benzanthracene, are also present in marijuana smoke.

A number of approaches have been used to investigate the behavioral effects of marijuana. In this review, we will limit our consideration to studies of the effects of marijauna on human behavior published since 1980. Only experimental studies conducted in laboratory settings using controlled acute marijuana administration procedures will be included. An important advantage of such studies is the availability of a high degree of control over conditions known to influence drug effects on human behavior (*e.g.*, cannabinoid content of marijuana, environmental context, motivation of the participant, etc.). This same degree of control is not possible when more complex and naturalistic dimensions of behavior, such as driving an automobile or flying an airplane, are invest-

igated. In addition, the dimensions of behavior that are engendered using traditional laboratory tasks typically consist of more basic behavioral elements (*e.g.*, reaction to a stimulus) from which more complex behaviors (*e.g.*, driving, flying) are derived. Laboratory tasks are effective for investigating the behavioral effects of drugs because they employ robust controlling variables to engender consistent performance between individuals and within individuals across repeated testing occasions. The behavioral effects of marijuana on human behavior can be evaluated most clearly by evaluating the results of experimental studies conducted under controlled conditions.

This review will focus on marijuana effects on four dimensions of human behavior:

1) Psychomotor Performance,
2) Learning and Memory,
3) Temporal Processing, and
4) Social Behavior.

These dimensions have received significant attention by researchers over the past 15 years (yr). Methodological details and outcomes of individual studies investigating the effects of marijuana on these dimensions will be presented in separate sections, followed by a brief summary of general findings in each area. The review will end with a general summary of results across these four dimensions, as well as a brief discussion of the legal issues concerning marijuana use and its behavioral effects.

Effects of Marijuana on Psychomotor Performance

Tasks used to evaluate the acute effects of marijuana on human psychomotor performance have typically required subjects to respond on manipulanda as rapidly and/or accurately as possible in response to changing environmental cues. Changes in response latency and/or accuracy as a function of the type of marijuana (*i.e.*, THC content) that is administered prior to task performance are used to determine marijuana's effects upon psychomotor performance.

Burns and Moskowitz examined the effects of marijuana on tracking and divided attention task performance (Burns and Moskowitz, 1981). Two separate tracking tasks, in which subjects were required to move a response manipulandum in order to adjust the location of stimuli displayed on a computer monitor, and a divided attention task, consisting of the simultaneous presentation of both a tracking and a vigilance component, were presented during test sessions. During the divided-attention task, the tracking stimulus, which was similar to that used during an individual tracking task, was presented in the center of the monitor, and the vigilance component, in which subjects were required to identify the number '2' when it appeared among 24 continually-changing numbers, was presented in the periphery of the monitor. Twelve male volunteers between 22 and 33 yr old who reported using marijuana more than ten times, but fewer than two times per week, participated. Each subject participated in several test sessions occurring on separate days, and one marijuana cigarette was smoked prior to each session. Marijuana cigarettes contained either 0 or 200 g/kg of THC (placebo and active), and each subject smoked both placebo and active cigarettes during study participation (*i.e.*, repeated measures design in which each subject was exposed to both placebo and active doses in a counterbalanced order across sessions). Cigarettes were smoked 30 minutes (min) prior to sessions using a steady, 30-second (s) rhythm of inhale-hold-exhale until the entire cigarette was consumed. The characteristics of the placebo and active cigarettes, which were provided by the National Institute on Drug Abuse, were similar except for the THC content. Performance on all psychomotor tasks was significantly impaired during sessions in which active marijuana was administered.

Ashton and colleagues investigated the effects of THC added to herbal cigarettes on signaled reaction time, as well as a number of additional measures, including heart rate and reports of mood (Ashton *et al.*, 1981). During the signaled reaction-time task, subjects pressed a button to identify the onset of an auditory tone which was presented during a varying interval (2 to 4 s) following the offset of a distinct auditory warning cue. The effects of 2.5 and 10 mg of THC were investigated in twenty unpaid adults who reported using one marijuana cigarette per week or less prior to participating in the study. These subjects were asked to smoke the marijuana cigarettes using a paced smoking procedure until the entire cigarette was consumed. Ten subjects smoked the low dose, and ten smoked the high dose prior to participating in a single session. During sessions, the

reaction-time task was completed before and intermittently for 65 min after drug administration. The authors reported that THC slowed reaction times, but that the effects were not statistically significant. Significant increases in heart rate and reports of 'high' were obtained under these same conditions, suggesting that signaled reaction time was less sensitive to the effects of THC than heart rate or subjective reports of drug effect.

Reeve and colleagues investigated the effects of marijuana on field-sobriety test performance (Reeve *et al.*, 1983). Specific components that were sensitive to the effects of marijuana included the Romberg, finger-to-nose, heal-to-toe, one-foot balance, finger-count and hand-pat tests. The male and female subjects, between 20 and 52 yr old, included 19 who reported using marijuana between once per week and once per month, 25 who reported using between once per week and once per day, and 15 who reported using once per day or more. Subjects were asked to smoke standard-strength marijuana cigarettes (containing 18 mg, or 2.38% THC) to what they construed as a reasonable 'high' (*i.e.*, smoking parameters, including number of puffs, puff duration, breathhold durations, and even number of cigarettes, varied across subjects). Five minutes after smoking, a police officer explained and demonstrated the field-sobriety task, immediately after which subjects were required to perform the task. The field-sobriety task was repeated intermittently for 150 min. All but one subject 'failed' at least one component of the test up to 30 min after smoking, and 60% continued to 'fail' at least one component 2.5 hr after marijuana consumption. Impaired performance was most consistent across tasks at blood THC concentrations between 25 and 30 ng/ml. Unfortunately, details of performance evaluation were not included, and because all subjects smoked active marijuana, it seems unlikely that evaluators were blind to the dose conditions. As such, these results must be interpreted with extreme caution, since the controls needed to establish a clear relationship between marijuana and performance of the field-sobriety test were not used in this study.

Zaki and Ibraheim examined the effects of marijuana on handwriting (Zaki and Ibraheim, 1983). Two adult (32 and 45 yr old) male marijuana users provided handwriting samples before, immediately following, and 1 hour after smoking four marijuana cigarettes of unknown potency. Handwriting after marijuana smoking was increased in size, with some altered letter forms and base-line deviations. Evaluation criteria for handwriting analysis were not provided, but the described changes were readily apparent in the samples of handwriting that were provided by the authors.

A study of the effects of smoked marijuana on performance of a circular lights task, and a variety of additional measures, was conducted by Cone and colleagues (Cone *et al.*, 1986). During the circular-lights task, 16 buttons and associated lights were displayed in a circle. At the start of the task, one random light was illuminated. When subjects pressed the associated button, the light was turned off, and a new randomly-determined light was immediately illuminated. Subjects pressed as many buttons as possible in a 1-min interval. The effects of smoked marijuana were investigated in four healthy male adults (22 to 54 yr old), each of whom had been exposed to THC during a previous research protocol. Subjects participated in three sessions on three consecutive days; two marijuana cigarettes were smoked in an unrestricted manner, one 45 min and one 15 min prior to beginning the circular-lights task. None, one or both cigarettes contained THC (2.8%). Each dose condition was presented prior to a single session in a mixed order. Circular lights task performance was impaired during sessions preceded by smoking two-active cigarettes. Impairment was maximal 15 minutes after smoking the second cigarette, and had returned to baseline levels (*i.e.*, to levels obtained during the two placebo cigarette session) by the end of the session (*i.e.*, 3.15 hours after the second cigarette was smoked). Similar effects were observed on subjective report of drug effects, although as in the Ashton *et al.* study, subjective report measures were more sensitive to the effects of marijuana (*i.e.*, significant effects were also observed on subjective reports during sessions preceded by only one active cigarette) than performance on the circular lights task.

Perez-Reyes and colleagues examined the acute effects of smoked marijuana on divided-attention performance, subjective report of drug effect, heart rate, ECG, and plasma THC level (Perez-Reyes *et al.*, 1988). During the divided-attention task, subjects responded on keys or foot pedals to indicate when a 2-digit number

centrally-displayed on a video monitor was above 57 or below 53, or when single digits displayed in the periphery changed from either 4 or 5 to 3 or 7 (*i.e.*, multiple vigilance tasks).

Six adult (22 to 29 yr old) male marijuana users (reporting using 0.5 to 9 marijuana cigarettes per month) received placebo and active marijuana (2.4% THC). Subjects smoked marijuana cigarettes in their preferred manner (*i.e.*, smoking parameters, including number of puffs, puff duration, breathhold durations and inter-puff intervals varied across subjects), and each dose was tested in a single session in mixed order. During each session, the divided-attention task was completed before, and repeatedly throughout a 6-hr interval following drug administration. Prior to the study, subjects were trained on the task until session-to-session performance did not show systematic increases or decreases, and during the study subjects received financial bonuses when performance was within ranges established during training. Active marijuana decreased response accuracy in four subjects and increased response latency in five subjects; however, response accuracy increased and response latency decreased following active marijuana smoking by one subject. The conditions associated with individual differences in the effects of marijuana in this study were unclear.

Heishman and colleagues have also investigated the effects of marijuana on multiple measures of human behavior (Heishman *et al.*, 1988). This group investigated the effects of marijuana on three computerized psychomotor tasks (circular lights, digit-symbol substitution and tracking), as well as heart rate, carbon monoxide (CO) levels (to assess marijuana smoke exposure), and subjective reports of drug effect. During the digit-symbol substitution task (DSST), subjects matched the locations of asterisks in a 3-row by 3-column pattern of dashes and asterisks displayed on a computer monitor by pressing keys on an attached 3-row by 3-column keypad that corresponded with the positions of the asterisks. Rates of correct and incorrect patterns (*i.e.*, trials) in a 90-s interval were recorded. During the tracking task, subjects were required to make manual adjustments on a paddle controller to changes in stimuli presented on a computer monitor. The effects of 0, 1.3 and 2.7% THC were investigated in six males (average age = 26.2 $\pm$ 5.3 years) who were experienced marijuana users (reported 10 occasions of marijuana use per month, with an average of 2.5 cigarettes per occasion). Prior to marijuana sessions, subjects smoked two marijuana cigarettes using a paced smoking procedure consisting of 8 puffs per cigarette (ad libitum duration) with a 10-s breathhold and a 40-s inter-puff interval. Each subject received all three doses on separate days in random order. Tasks and other measures were collected before and intermittently for 255 min after marijuana smoking. Subjects were paid for study participation, but any additional programmed consequences for task performance were not reported. Active marijuana decreased the number of DSST trials completed, but no other changes in psychomotor performance were reported. The effects of both active doses were significantly different from placebo over approximately 105 minutes, but the effects of the two active doses were not different from each other. These same doses increased ratings of drug effect, and increased heart rate. Another interesting finding in this study was that CO levels decreased as a function of THC concentration in the marijuana, suggesting that smoking compensation may have occurred as a function of THC concentration during marijuana administration.

A second analysis of the effects of marijuana on human behavior, under conditions in which the parameters of marijuana smoking characteristics were more closely monitored, was conducted by Heishman and colleagues. This study investigated the effects of marijuana on psychomotor performance (digit-symbol substitution and divided-attention tasks), heart rate, CO and subjective reports of drug effect (Heishman *et al.*, 1989). The divided-attention task consisted of the tracking task used in the previous study (Heishman *et al.*, 1988) presented in the upper half of a computer monitor, and a vigilance task, in which subjects were required to press a key to identify a digit displayed in the center of a rectangle in the lower half of the computer monitor when it appeared in any of the four corners of the rectangle. Four numbers were continuously displayed in the corners of the rectangle, and these numbers changed throughout the 2-min task. The DSST was also presented for 2 min. The effects of 0, 1.3 and 2.7% THC were investigated in twelve males (23 to 43 yr old) who were occasional marijuana users (10 subjects reported using marijuana an average of 7.8 times per month, with 2.1 cigarettes smoked per occasion). Prior to

experimental sessions, subjects took 8 puffs from a marijuana cigarette. Subjects had been trained to puff immediately after exhaling smoke from the previous puff, but additional restrictions on smoking parameters were not imposed. Several puff characteristics, including puff duration, volume, and air flow rates during smoke inhalation were monitored. Each subject received each of three doses presented in a counterbalanced order. Tasks and other measures were collected before and intermittently for 65 minutes after marijuana smoking. Subjects were paid for study participation, but other consequences for task performance were not reported. Prior to the study, subjects received practice on tasks until stable performances were obtained. The 2.7% THC marijuana cigarette decreased the number of correct DSST trials completed on all testing occasions (for the entire 65 min). No effects on performance of the divided-attention task were observed. Dose-related increases in heart rate occurred, and both doses produced similar increases in verbal ratings of drug effect. Differences in puff duration and volume, as well as inhalation volume, occurred across THC concentrations, again suggesting that compensation may have occurred during marijuana administration.

A third study of the effects of marijuana on human behavior by this group, under conditions in which marijuana smoke exposure was manipulated in a systematic manner, was reported by Azorlosa *et al.*, 1992. This study included most of the dependent measures used in the previous study, including the DSST (1.5 min) and the divided-attention task (2 min); but blood levels of THC were also measured. The effects of 4, 10 or 25 puffs taken from marijuana cigarettes containing 1.75 or 3.55% THC were investigated in seven males (19 to 28 yr old) who were regular marijuana users (2 to 14 occasions per week). Non-smoking control sessions were also conducted. Prior to the study, subjects were trained to take standardized puffs on marijuana cigarettes, with each puff containing 60 ml of smoke drawn over a 10-s interval. Puffs were administered every 60 s. Smoking characteristics were recorded by computer, and auditory signals indicated when required capacities and durations were achieved. Several puff characteristics, including puff duration and volume, and air flow rates during smoke inhalation, were monitored. Each subject received each of the dose conditions in a counterbalanced order. Tasks, blood samples, and other measures were collected before and intermittently for 45 minutes after marijuana smoking. Decreases in the completed and in the correct number of DSST trials were observed as a function of both THC concentration and the number of puffs. Response latency on the vigilance component of the divided-attention task also increased when subjects took 25 puffs of the 3.55% THC cigarettes. Effects were observed throughout the 45 minutes testing interval. Heart rate and plasma THC levels increased, and changes in the verbal ratings of drug effect occurred with both dose and number of puffs. CO levels, however, increased as a function of number of puffs but not dose. These results indicate that the smoking controls used in the present study were effective for maintaining standard smoke exposure across dose and puff manipulations. Under these conditions, clear dose-related disruptions in psychomotor task performance, heart-rate and subjective reports of drug effects were observed. In addition, differences in sensitivity to the performance effects of THC were observed as a function of psychomotor task.

A fourth study by this group of investigators was recently reported (Azorlosa *et al.*, 1995). In this study, number of puffs, inhalation volume, and interpuff interval were held constant, while puff volume (30, 60 and 90 ml) and breathhold durations (0, 10, 20 s) were manipulated in separate studies to determine the effects of systematic changes in smoke exposure (from marijuana containing 1.75 or 3.55% THC) on the same measures reported in the previous study. No significant effects were observed during any experimental condition on psychomotor performance in this study. Plasma THC levels were elevated in response to both increased puff volume and breathhold duration. In contrast, CO levels and verbal ratings of drug effects were elevated only in response to increased puff volume. These studies demonstrate that both THC content and marijuana smoke exposure are critical determinants of the biological and behavioral effects of marijuana smoking, and that differential sensitivity to THC is obtained among biological and behavioral measures of drug effect.

Chait and colleagues investigated the effects of cumulative doses of marijuana on multiple measures, including divided attention task per-

formance (Chait *et al.*, 1988a). During the divided-attention task, subjects pressed keys as quickly as possible to identify a '0' appearing in a continuous string of random numbers, while counting the number of times that the number '5' was displayed. The effects of cumulative numbers of puffs from 0% and 1.4% THC marijuana cigarettes were investigated in five males and three females (18 to 25 yr old) who were experienced marijuana users who reported 1 to 24 occasions of marijuana use per month. Subjects participated in four 3.5 hour sessions, scheduled once per week. Subjects took four puffs from marijuana cigarettes on four separate occasions during a session; each four-puff smoking occasion was separated by 20 minutes. At each smoking occasion, puffs were taken once every 60 s, and subjects were instructed to inhale for 5 s and to hold the smoke in their lungs for 10 s before exhaling at each puff. The number of puffs taken from the active cigarette (1.4% THC) at each of the four smoking occasions was 0, 2, 2 and 4 puffs, respectively. Divided-attention task performance was measured in five 5-minute intervals during each session. The divided-attention task was completed prior to marijuana smoking and during the four 20-minute intervals following marijuana smoking. Subjects were paid for study participation, but other programmed consequences for task performance were not reported. Prior to the study, subjects attended a practice session during which the divided-attention task was performed. In general, no change occurred in '0' stimulus identifications or reaction times as a function of marijuana smoking, but effects were observed immediately following displays of the number '5' following the fourth smoking occasion. Puff-dependent increases in heart rate and subjective reports of drug effect were observed, again indicating differential sensitivity to the effects of THC between psychomotor task performance and heart rate or subjective reports of drug effect.

Marks and MacAvoy also examined the acute effects of smoked marijuana on divided-attention task performance (Marks and MacAvoy, 1989). During their divided-attention task, subjects responded to indicate when a centrally-displayed flashing light stopped flashing or when peripherally displayed lights flashed (*i.e.*, multiple vigilance tasks). Twelve college students, six of whom were experienced marijuana users (*i.e.*, who reported using 1.5 to 6 marijuana cigarettes per week) and six of whom were nonusers, received placebo ethanol doses and marijuana cigarettes containing 0, 2.6 or 5.2 mg of THC. Subjects were asked to smoke the marijuana cigarettes using a paced smoking procedure, including a 'deep' inhalation of smoke and a 20-s breathhold, with 20 s separating successive puffs. Puffing continued until the entire cigarette was consumed. Each dose was tested during a single session, in mixed order. During each session, the divided-attention task was repeatedly administered from 0.5 to 1.3 hr after drug administration. Prior to the study, subjects were trained on the task until errorless performance was established. Subjects were paid for participation independent of task performance. However, feedback lights indicated correct vigilance responses and missed signals (*i.e.*, signals that were not followed by responses). During the study, active marijuana decreased accuracy (increased missed signals), although significant effects were limited to the high dose condition. Response latency was unaffected. More peripheral signals were missed by nonusers than users (*i.e.*, the effects of marijuana were greater in nonusers than users, suggesting that tolerance to the performance effects of may occur following regular use).

A series of studies by Foltin and colleagues examined the motivational effects of marijuana (Foltin *et al.*, 1990a; Foltin *et al.*, 1990b; Foltin *et al.*, 1989b). Using time-based measures of behavioral probability, access to high-probability (*i.e.*, preferred) work and recreational activities was contingent on performance of low-probability (*i.e.*, non-preferred) activities. Work activities included the DSST, as well as disk-sorting, word-sorting and vigilance tasks, and the relative preference for working on these tasks was determined separately for each subject. Twenty-four healthy adult males (19 to 35 yr old) who reported smoking between 1 and 12 marijuana cigarettes per week participated in residential studies lasting 15 to 18 consecutive days. Across studies, marijuana cigarettes (0, 1.3, 1.8, or 2.7% THC) were smoked at regular intervals every day. THC concentration of the cigarettes remained constant within 2 to 6 day intervals, but was varied systematically across intervals throughout each study. All cigarettes were smoked using a paced smoking procedure consisting of five, 5-s puffs with a 10-s breathhold and a 45-s interpuff interval. Subjects were paid for participation but not

contingently for quality of task performance. Subjects received training on all tasks prior to the start of each study. Consistent mari-juana effects on work task performance were not observed across these studies, although selective disruption of DSST performance was reported in some individuals (Kelly *et al.*, 1990). Contrary to the 'amotivational hypothesis,' increases in the amount of time that subjects engaged in non-preferred work tasks were observed following active marijuana administration. In addition, marijuana's effects on the amount of time that subjects engaged in preferred and non-preferred activities were different depending on whether the activities were work as opposed to recreational activities, indicating that the behavioral effects of marijuana are dependent on the type of behavior and context in which marijuana effects are determined. The results of these studies, as well as others not described in this review, have demonstrated clearly that the 'amotivational hypothesis' is inadequate to account for the diversity of behavioral effects observed following marijuana administration.

Block and colleagues investigated the acute effects of marijuana on critical flicker fusion performance and discriminant reaction time (Block *et al.*, 1992). The critical flicker fusion task required subjects to differentiate two visual stimuli, one presented continuously and one flickering. The flickering rate was adjusted, and the minimum value at which subjects could still differentiate between the two stimuli with complete accuracy was determined. In the discriminant reaction time task, single digits were repeatedly presented on a computer screen for 0.1 s, and subjects were required to press a button whenever a '4' appeared. The interstimulus interval, initially set at 0.4 s, was varied until the minimum duration at which subjects could respond with accuracy was established. Adult subjects (18 to 42 yr old) who reported being experienced marijuana users, smoked placebo and active marijuana (2.57% THC) according to a paced smoking procedure consisting of either 7- or 15-s puff/breathhold intervals. Signaled puff/breathhold intervals occurred every 35 s until an entire marijuana cigarette was consumed. Each subject smoked placebo and active cigarettes under double-blind conditions and was randomly assigned to either the 7- or the 15-s puff/breathhold interval group (N=24/group). Each subject was tested twice at each dose level. Subjects were not trained on the tasks prior to study participation. They were paid for participation, but pay was not contingent on task performance. Active marijuana decreased thresholds for flicker discrimination and slowed discriminant reaction times. The effects of active marijuana were unaffected by puff/breathhold intervals.

Foltin and colleagues recently examined the effects of marijuana on psychomotor performance (Foltin *et al.*, 1993). A 5-minute test battery used in this study included brief simple and choice reaction-time components and a 1-minute digit-symbol substitution task component. Task components were presented sequentially. The battery was completed prior to drug administration, and again 15-minutes after smoking marijuana. Marijuana cigarettes (0, 1.3 or 1.84, and 2.7% THC) were smoked using a paced smoking procedure consisting of five, 5-s puffs with a 10-s breathhold and a 45-s inter-puff interval. Seven males (21 to 45 yr old) who reported regular use of marijuana (1 to 7 occasions per week) participated in daily sessions (Monday through Friday) and each dose was administered prior to one session. Marijuana had no effect on performance, but clear dose-related changes in subjective reports of drug effect were observed.

Kelly and colleagues have also examined the effects of marijuana on multiple measures of human performance on a variety of computer-generated tasks, including the digit-symbol substitution task and a differential-reinforcement of low-rate (DRL) schedule of point presentation (Kelly *et al.*, 1993). During the DRL task, button presses that were separated in time from the start of the task or from a preceding press by 45 s increased a counter. The effects of 0, 2.0 and 3.5% THC were investigated in six males (24 to 29 yr old) who were experienced marijuana users (reported 2 to 30 occasions of marijuana use per month). Prior to sessions, subjects smoked marijuana cigarettes using a paced smoking procedure consisting of five, 5-s puffs with a 10-s breathhold and a 45-s inter-puff interval. Each subject received each of the three doses prior to three sessions, which occurred once per day over ten consecutive weekdays. Task measures were collected during a 3-hour session that began 15 minutes after marijuana smoking. Intermittently throughout the 3-hour session, subjects participated on the DSST and DRL tasks for 3-

minute intervals. Subjects were paid for study participation and for completing tasks in a specified order during the 3-hour session. Monetary contingencies were not placed on task performance, although subjects were required to complete a mini-mum number of trials during each 3-minute task in order to maximize earnings. Prior to the study, subjects received task training until stable patterns of responding were observed. Errors increased when active marijuana was administered, although no differences were observed as a function of THC content. Correct trial rate, however, decreased as a function of THC content. Changes in DRL task performance did not occur as a function of marijuana administration.

Wilson and colleagues examined the effects of marijuana on tracking, standing steadiness, DSST, choice reaction time and vigilance performance (Wilson *et al.*, 1994). During the tracking task, subjects operated a steering wheel to keep a line segment which moved horizontally in a random manner centered on a computer monitor. During the standing-steadiness task, subjects were instructed to stand still, 1) with eyes open but fixed on an object, and 2) with eyes closed. Strain gauges attached to the platform on which subjects were standing were used to automate the measurement of movement. During the choice reaction-time task, subjects pressed keys on a keypad that matched numbers displayed on a monitor. During the vigilance task, subjects pressed a key when an even number followed an odd number, or when an odd number followed an even number, in a series of numbers presented on a monitor. The effects of marijuana cigarettes containing 0, 1.75 and 3.5% THC were investigated in ten males (19 to 40 year old) who were using marijuana "occasionally" prior to the study. Subjects participated in three, 4-hour sessions, scheduled no more frequently than once per week. Subjects smoked each marijuana cigarette under double-blind conditions during one session in an *ad lib* manner. Performance testing, which lasted approximately 15 minutes, occurred prior to marijuana smoking and at 30, 90 and 150 minutes after smoking. Blood samples were collected at 0, 10, 30, 50, 70, 90, 110, 130, 150, and 170 minutes after smoking. Subjects were paid for study participation, but no other programmed consequences for task performance were reported. Prior to the study, subjects received task training until less than 10% variance on performance dimensions were observed during repeated testing. No changes in standing-steadiness or vigilance performance occurred following marijuana smoking, while tracking performance, choice reaction time and DSST performance were disrupted by active marijuana. Time-course effects varied across tasks; THC-induced changes in DSST performance were observed at each testing occasion (even 150 min after drug administration). Peak blood THC levels were observed 10 min after smoking, but differences were not observed as a function of THC content of the marijuana cigarette.

Most studies of the acute effects of smoked marijuana on human psychomotor performance report either the absence of an effect of marijuana on performance, or decremental effects on performance. Numerous factors, including the performance task itself, the THC content of the smoked marijuana, and the extent of exposure to marijuana smoke, influence the performance effects of smoked marijuana. In addition, factors other than smoking topography also influence the bioavailability of THC in marijuana smoke (Perez-Reyes, 1990). In sum, the weight of evidence clearly indicates that decremental effects of smoked marijuana on measures of human psychomotor performance are reliably obtained under conditions in which adequate exposure to THC-containing marijuana smoke is established through experimental manipulations. However, the parameters that determine adequate exposure are not yet well understood (*e.g.*, interactions between THC content, smoke exposure, performance task and testing conditions).

The effects of orally-administered THC have also been examined. Kamien and colleagues examined the effects of oral doses of THC on DSST performance (Kamien *et al.*, 1994). The effects of 0, 10 and 20 mg of THC were investigated in three female and five male healthy adults (19 to 33 yr old) most of whom had reported using marijuana on more than 40 occasions throughout their lifetimes. Doses were administered in mixed order prior to one, two or three sessions (subjects participated for differing numbers of sessions), and sessions occurred no more frequently than once every three days. Performance measures were collected before and after drug administration, as well as at 30-minute intervals for five hours after drug administration. Subjects were paid

for study participation, but no monetary contingencies were placed on DSST performance. THC decreased the number of DSST trials completed, but had no effect on accuracy.

Chesher and colleagues also investigated the effects of orally-administered THC on multiple measures of psychomotor performance, including standing steadiness, pursuit rotor tracking (a tracking task in which the tracking stimulus rotates on a horizontal plane in a clockwise direction at a fixed rate), and both simple and complex reaction times (Chesher *et al.*, 1990). The effects of 0, 5, 10, 15 and 20 mg/70 kg of THC (doses adjusted for body weight) were investigated in 23 female and 57 male healthy adults (18 to 34 yrs old), all of whom had previous experience with marijuana use. Subjects participated in a single session and were randomly assigned to one of the five dose conditions. Performance measures were collected before and 80, 140, 200 and 260 min after drug administration. Subjects consumed a light breakfast and participated in 'a practice run on all of the tests' prior to the predrug test. Standing steadiness and pursuit-rotor tracking performance was impaired at all tests up to and including the 200-minute test. Simple visual reaction time was increased only at the 200-minute test, and simple auditory reaction time was increased only at the 140-minute test. Complex reaction time was unaffected, but response accuracy on one complex reaction-time task was disrupted at the 80- and 140-minute tests. Dose effects on individual tasks were not analyzed, but clear dose-related impairments were observed on performance measures averaged across these tasks. The results of these last two studies also indicate that like smoked marijuana, orally administered THC produces decremental effects on some measures of human psychomotor performance.

Two studies by Chait and colleagues have also investigated the next-day, or residual effects of marijuana administration on psychomotor performance (Chait, 1990; Chait *et al.*, 1985). The first study (Chait *et al.*, 1985) examined marijuana effects on eye-hand coordination and DSST performance. The eye-hand coordination task consisted of two, 40-card sorts, one into four, 10-card stacks, and the other into four stacks based on suit. The effects of marijuana cigarettes containing 0 and 2.9% THC were investigated in 14 males (21 to 35 yr old) who had used marijuana on at least ten occasions during their lifetime. Marijuana use during the month prior to the study ranged from 0 to 50 cigarettes per week. Subjects participated in two or three sessions, occurring between 8:00 p.m. and approximately 8:00 a.m. the following morning, scheduled no more frequently than once per week. Subjects smoked two marijuana cigarettes 90 minute apart under blind conditions. On two sessions, both cigarettes were either placebo or active. Subjects participating in a third session received one placebo cigarette and one active cigarette on the third session. Order of dose exposure was varied among subjects. Cigarettes were smoked using a paced smoking procedure consisting of five, 5-s puffs with a 10-s breathhold and a 45-s inter-puff interval. Performance testing, which lasted 15-20 minutes, occurred prior to marijuana smoking, 25 minutes after the first cigarette, 20 min prior to the second cigarette, 25 minutes after the second cigarette, and 30 minutes after awakening the following morning. Subjects were paid for study participation, but no other programmed consequences for task performance were reported. Prior to the first session, subjects reported 1 hour early to familiarize themselves with the tasks. Card-sorting times were increased immediately after active marijuana was smoked, but residual effects were not observed on this measure the following morning. DSST performance was not altered by marijuana smoking at any time during the study.

The second study of the residual effects of marijuana (Chait, 1990) examined multiple dimensions of psychomotor performance, including simple and choice reaction time, visual divided-attention and DSST performance. During the simple reaction-time task, subjects were instructed to press a key as quickly as possible whenever an asterisk appeared on the center of a monitor. During the choice reaction-time task, subjects pressed one key if a digit presented on the monitor was even, and another key if the digit was odd. During separate versions of this task, the location of the stimuli was either 1) always in the center of the monitor, or 2) at random locations on the monitor. The visual divided-attention task was identical to that used by Chait (Chait *et al.*, 1988a) as described above. The effects of marijuana cigarettes containing 0 and 2.1% THC were investigated in 9 males and 3 females (18 to 26 yr old) who reported using marijuana

between 1 and 3 times per week. Subjects participated in two weekend sessions (Friday evening through Monday morning), separated by 2 weeks. Each weekend, subjects smoked marijuana during 2-hour smoking intervals scheduled at 9:00 p.m. on Friday, Saturday and Sunday evenings, and at 3:00 p.m. on Saturday and Sunday afternoons. During each smoking interval, subjects received four puffs at both the beginning of each 2-hour interval and 1 hour into the smoking interval (8 total puffs per interval). Puffs consisted of five, 5-s inhalations and 10-s breathholds with 45-s inter-puff intervals separating successive puffs. During each weekend session, all puffs were from either active or placebo marijuana cigarettes, with order of dose exposure varied among subjects. Performance testing occurred on Saturday, Sunday and Monday mornings between 8:00 and 9:00 a.m. Subjects were wakened at 7:30 a.m. Prior to the study, subjects practiced the tasks during a week-night practice session and prior to the Friday smoking interval on the first weekend session. Reaction time to the '0' stimulus was increased after smoking active marijuana the previous day, but no other dimension of divided-attention performance nor any of the other psychomotor tasks was affected by previous-day marijuana smoking. These results suggest that smoked marijuana may produce residual effects on some measures of next-day psychomotor performance, but that these effects are clearly of a smaller magnitude than those obtained immediately following smoke exposure. Additional research on this issue is clearly warranted.

Summary. A number of important advances have been made over the past 15 years in the experimental analysis of the effects of marijuana on human psychomotor performance. Psychomotor performance tasks are administered under controlled conditions, objective measures of task performance are being collected more consistently, the relationship between marijuana smoke exposure and THC absorption is more clearly understood, the behavioral effects of oral THC dose administration and next-day, or residual effects of marijuana smoking are being more carefully examined, and evaluations of dose-dependent relationships between THC administration and performance impairment are becoming more common.

The weight of evidence presented in the above studies clearly indicates that marijuana alters human psychomotor performance, and that the potency of these effects is directly related to THC. When marijuana is smoked, and a sufficient amount of THC is absorbed during the smoking process, impairment is observed almost immediately, and effects last for up to 3 hour. The magnitude of impairment is directly related to the amount of THC that is absorbed during the smoking process. When marijuana or THC is administered orally, the onset of psychomotor impairment is delayed, and the effects occur over a longer interval of time (*e.g.*, impairment has been reported 3.5 hr after oral marijuana administration). Although less thoroughly investigated, some data also suggest that acute marijuana smoking can result in impaired psychomotor performance the following day (*i.e.*, residual, or next-day effects). However, given the complex nature of variables affecting psychomotor performance under conditions used in these studies, evidence for residual effects of marijuana should be interpreted with caution.

It is also clear that the reported effects of marijuana on psychomotor performance vary across studies. These studies, however, differ along a number of important dimensions, including marijuana administration procedures, the extent of marijuana use by subjects prior to study participation (*i.e.*, degree of tolerance to the effects of THC), prior training and experience with the experimental tasks, and contingencies used to maintain task performance during studies. Differences in study procedures must be considered carefully when evaluating evidence associating marijuana use with performance impairment. One technique used by investigators to adjust for procedural differences that might influence the effects of marijuana on psychomotor performance is to use other indicators of marijuana effects, in addition to psychomotor performance. Heart rate and subjective reports of drug effect are two commonly used indicators. By comparing marijuana effects on multiple indicators across studies, it becomes possible to evaluate the relative potencies of drug used across studies. Studies in which measures of heart rate and/or subjective report of drug effects have been collected in addition to psychomotor performance have consistently reported that changes in heart rate and subjective report of drug effect occur at THC doses that are equal to or lower

than those required to produce changes in psychomotor performance. Most studies in which clear changes in heart rate and/or subjective report of drug effects have been reported following marijuana administration have also reported THC-related impairment of psychomotor performance. When sufficient THC is absorbed during marijuana administration, human psychomotor performance is clearly impaired.

Effects of Marijuana on Memory

Disruption of memory has been cited as the single, most consistently reported, behavioral effect of marijuana (Miller, 1984). Experimental tests of memory are also varied but often can be categorized into tests directed at what has historically been referred to as "short term" and "long term" memory. Short term memory functions involve recollections immediately following up to several seconds from initial exposure of the to-be-learned material. One example of a test used to address short term memory function is the digit span task. In this task, subjects are presented a progressively longer series of digits and are soon after asked to reproduce them. "Long term" memory is considered a permanent memory store with a qualitatively longer duration and larger capacity than short term memory. Tests of long term memory often entail either free recall or recognition tests. In free recall tests, subjects are presented material, for example a list of words, and subsequently are asked to reproduce what was presented without an experimenter-imposed structure on the order or other limitation on how the subject responds. The subject can make errors of omission (*i.e.*, omitting previously presented material) or commission (*i.e.*, including material not actually presented). In recognition tests, subjects are presented material, and during testing are presented items which may or may not have been initially presented. The subject's task is to correctly identify (recognize) what items were or were not originally presented.

Testing the effects of marijuana upon memory functioning can involve the administration of marijuana at any of several time points. Marijuana can be administered either during learning or during recall, or during both. Marijuana can also be administered between the learning and recall components in order to address the possibility of affecting future, drug-free recall of already learned material.

Studies prior to 1980 have observed that marijuana can induce memory impairments under some conditions but not others and have not found conditions in which marijuana facilitates memory. For instance, material learned under a marijuana state and later recalled either under a drug-free or a marijuana state is detrimentally affected relative to learning under a non-drugged state (for review, see Ferraro, 1980). Material learned in a drug-free state, however, and later recalled or recognized under a marijuana state is often little affected. Studies published after 1980 have typically affirmed this generalization and have further examined the conditions under which marijuana can affect learning and memory.

The effects observed upon the digit span task by smoking marijuana have been inconsistent, and have not regularly been related to either dose or to whether the task required recall of digit series in the order presented or in their reverse order (*i.e.*, forward or backward recall). Smoking a single THC-containing cigarette (1.3 or 2.7% THC) impaired digit recall in 12 marijuana-experienced men, in that the number of correct spans and the longest correct span before an error was reduced relative to smoking a placebo cigarette (Heishman *et al.*, 1989, see above). Only the lower dose, however, significantly reduced these measures during forward recall, while only the higher dose produced these impairments during reverse recall. There were systematic dose-dependent effects on heart rate, although the doses produced similar subjective report effects on "drug high" and "impaired performance" on the visual analog scales. Chait and colleagues also found that marijuana reduced the number of digits correctly recalled in a forward recall digit span task (Chait *et al.*, 1988a, see above).

In contrast to the above two studies, other reports have not shown an effect of marijuana on the digit span task. For example, in one study subjects did not show impairments on either the forward or the reverse recall of digit sequences after smoking a 10.7 mg THC-containing cigarette when tested in a memory battery which included a digit span task (Hooker and Jones, 1987). From these results the authors concluded that marijuana did not impair immediate "attention." There were many

differences among studies which could account for the reported differences in effect including the type of digit span task employed and the method used to smoke (*e.g.*, the topography of smoking was controlled in the studies by Heishman and Chait but smokers smoked freely in the Hooker study).

In several studies involving tests of longer-term memory, marijuana administration slowed retrieval of information but the degree of impairment was not necessarily correlated with the degree to which memory was required. For example, Block and Wittenborn (1986) examined the effects of smoking marijuana on the ability of 24, marijuana-experienced (median of 2.5 marijuana smoking occasions per week during the preceding 6 months) men to quickly identify whether two, tachistoscopically-presented letters had the same name (*e.g.*, "AA", "aa" or "aA") or not (Block and Wittenborn, 1986). An assumption was that less memory retrieval is required on same-case (*i.e.*, "AA") than on mere same-name (*e.g.*, "aA") trials, and if marijuana specifically affected retrieval the reaction times during same name trials would be more markedly increased. Smoking a 10 mg THC-containing marijuana cigarette significantly slowed reaction times during all types of trials, equally, suggesting that the drug did not differentially affect retrieval requiring a greater memory dependency.

In other studies, Block and Wittenborn investigated whether marijuana produced more uncommon associations and greater vivid imagery during recall, and also whether these effects affected the degree of memory retrieval. In one study, 36 subjects with marijuana histories were tachistoscopically-shown a category word (*e.g.*, FRUIT) and subsequently were required to identify whether a noun (*e.g.*, APPLE) belonged to that category (Block and Wittenborn, 1984a). Also manipulated was the degree of familiarity of the presented nouns (APPLE is a more common example of fruit than is TANGERINE) to determine whether marijuana specifically promoted uncommon associations. Non-drugged subjects typically respond faster to common associations relative to uncommon associations. If, indeed, marijuana increases the probability of uncommon associations, the authors reasoned that this would result in equalized reaction times during common and uncommon trials.

Smoking a 10 mg THC-containing marijuana cigarette did not affect error rates relative to placebo control in this study (Experiment 1, Block and Wittenborn, 1984a). Marijuana did slow reaction times during all types of trials, relative to placebo. The differential, however, between common and uncommon trials was similar between drug and placebo conditions suggesting that uncommon associations were not promoted by marijuana.

In a subsequent experiment (Experiment 2, Block and Wittenborn, 1984a), other subjects were required to identify whether two nouns belonged to the same category (*e.g.*, APPLE PEACH or APPLE APPLE) or different categories (*e.g.*, APPLE BLUEBIRD) and the degree of familiarity of the nouns was again manipulated. In this experiment, marijuana produced a "marginally significant" increase in errors on "different" trials but in no other conditions were the differences between drug and placebo conditions significant. The results of this experiment were consistent with the others leading the authors to conclude that marijuana did not differentially impair semantic-memory retrieval.

Block and Wittenborn further investigated the potential interaction between smoking marijuana and the generation of unusual associations on memory. In these studies, subjects were presented with a category name followed by a letter (*e.g.*, "WEAPON–G"), and they had to name an instance of that category beginning with that letter (*e.g.*, "GUN") (Experiment 2, Block and Wittenborn, 1985). Each letter-category combination had a "target" instance. The "target" was the instance most frequently produced with the specified letter by non-drugged subjects. Common targets were mixed with "uncommon targets" which began instances infrequently given. Normal, non-drugged subjects, show a marked facilitation in their speed of responding to, and in the number of examples produced for, common letter-category combinations. The results indicated that, relative to placebo, smoking a 10 mg THC-containing cigarette reduced the advantage that common trials had relative to uncommon trials, both in terms of percent of targets obtained and in response rate, but not in terms of reaction time. These results were thus consistent with those from their earlier study (Block and Wittenborn, 1984a) in which they found that marijuana did not differentially

reduce the reaction time advantage on common versus uncommon trials and suggested to them that associative processes were not altered. Contrary to this earlier report, however, there was evidence that uncommon associations were being promoted by marijuana. In a subsequent study, Block and colleagues found further evidence that uncommon associations could be produced by smoking marijuana during free and constrained association tests (Block *et al.*, 1992).

Block and Wittenborn also investigated whether visual imagery could be more effectively used to facilitate paired-associate learning while under marijuana's effects (Block and Wittenborn, 1984b). Subjects were divided into equal groups who either smoked a placebo or a 10 mg THC-containing cigarette and were given paired-associate learning with high-imagery nouns. In each group, half the subjects were instructed to use visual imagery during learning and half were not instructed in any specific learning technique. Instructions to use visual-imagery was expected to enhance learning and memory under both placebo and marijuana conditions. The authors reasoned, however, that if marijuana enhanced visual imagery, then the subjects who smoked marijuana and were also told to use visual imagery should show greater improvement than the placebo group told to use visual imagery.

The results showed that marijuana did not impair recall relative to smoking placebo (Block and Wittenborn, 1984b). Instructions to use visual imagery during paired associates learning enhanced recall under both placebo and marijuana conditions equally, relative to comparable no-instruction conditions (Block and Wittenborn, 1984b). These results suggested that marijuana did not enhance visual imagery relative to placebo conditions. In addition, when the "vividness" of the images used to form the paired associations was independently rated following the recall tests, marijuana was found to significantly decrease the vividness scores. The somewhat surprising result that marijuana did not impair recall may have been dose-limited for in subsequent studies in which subjects smoked cigarettes containing a greater THC yield (19%), marijuana produced clear impairments on paired-associate recall, recall of prose material, and upon the immediate and delayed recall of word lists (Block *et al.*, 1992). The results of these series of experiments by Block and colleagues, overall, indicates that marijuana can impair recall, and does not enhance unusual associations or the vividness of imagery in a way which facilitates memory or learning.

As Block and colleagues had reported (Block *et al.*, 1992), other researchers have also reported that smoking marijuana can reduce the recall of words from presented word lists (Block *et al.*, 1992; Wetzel *et al.*, 1982; Zacny and de Wit, 1989b). Chait and colleagues reported that smoking marijuana cigarettes (2.9% THC) significantly reduced the number of recalled words immediately following their presentation in word lists relative to smoking placebo cigarettes (Chait *et al.*, 1985). These researchers also found that marijuana increased the amount of time to complete a playing card sorting task and impaired subjects' perception of time intervals. When these subjects were subsequently tested in the morning following smoking to determine whether there were "hangover" effects of marijuana, only the perception of time, however, was impaired.

Perez-Reyes and colleagues investigated the effects of THC on free recall (Perez-Reyes *et al.*, 1991). In their study, subjects smoked six pipe bowls of 0.4 mg/kg marijuana containing 2.57% THC separated by 1-minute intervals. Before, and then at 30, 60, and 120 min after smoking marijuana the subjects were tested in a free recall task in which they were presented 24 words on a computer screen and then were given 5 min to type out as many of these words as they could remember. A time estimation and a time production task were also administered at these intervals. At other intervals following smoking, heart rate, subjective ratings of "high" and plasma THC concentration was calculated. Smoking marijuana elevated heart rate, subjective ratings of "high", and the subjective time rate determined in the time estimation and production tasks (Perez-Reyes *et al.*, 1991). THC also impaired the recall of words during the free recall tasks. Smoking marijuana has also been reported to reduce recall of words from word lists in other studies and in the absence of effects on remote (long-term) memory (Wetzel *et al.*, 1982; Zacny and de Wit, 1989a).

Marijuana has also been found to affect short story recall. Marijuana-experienced subjects recalled fewer gist elements from short stories

after they smoked a 10.7 mg THC-containing cigarette, relative to placebo, under delayed free recall conditions (Hooker and Jones, 1987). This impairment on delayed, free-recall of short stories was characterized by both omissions and by intrusions of recently acquired information. The performance of these same smokers was not impaired when memory was evaluated under less-demanding conditions, including during tests for short story retention during immediate recall, the learning and later recall of word and paired-associate lists, and during the controlled retrieval of words guided by linguistic association (production of instances of words beginning with a specified letter). These results were similar to those found under similar dosing conditions by Block and Wittenborn in that paired-associate recall was not adversely affected (Block and Wittenborn, 1984b), but were unlike those found when tests were conducted with cigarettes containing a greater THC content (19%) in which both immediate and delayed recall of text, paired associate learning, and learning of word lists were adversely affected (Block *et al.*, 1992). In examining these studies it seems possible that increasing the THC dosage or increasing the demands of the memory task may reveal similar impairments on learning and memory produced by marijuana not observable under less demanding conditions.

Marijuana may have effects upon learning new behavior, performing previously learned behavior, or both. A useful paradigm that differentially addresses a drug's potential to affect acquisition of new behavior versus performance of previously-learned behavior is the *repeated acquisition procedure* (Boren and Devine, 1968). This procedure typically has two components. During one component a subject learns, *de novo*, a new task, such as a particular sequence of response keys which must be pressed to produce a reward. This "acquisition" component alternates within a test session with a "performance" component during which the subject completes a previously-learned sequence of response-key presses, and its correct completion also results in reward. The repeated acquisition procedure has been used to disentangle the effects on acquisition versus performance by a variety of drugs using both human and non-human subjects (*e.g.*, Higgins *et al.*, 1987; McMillan, 1988; Schulze *et al.*, 1988; Thompson, 1973).

Using this procedure, Kamien and colleagues examined the effects of placebo, 10 mg, and 20 mg THC-containing capsules on acquiring new sequences and performing previously-learned sequences of numeric keypad presses reinforced with monetary reward (Kamien *et al.*, 1994).

They found that both doses of THC significantly increased the peak percentage of errors during acquisition components but not during performance components, relative to pre-drug levels. The effect of THC dose on per cent errors did not show a significant dose by component interaction, however, indicating that behavior was not necessarily more sensitive during acquisition than behavior during performance. Similar disruptions of initial learning were reported following marijuana smoking in a second study using the repeated acquisition procedure (Kelly *et al.*, 1994a). Kamien *et al.* observed that their results were in contrast to repeated acquisition studies involving non-human subjects which demonstrated a lack of significant effects by THC on repeated-acquisition performance (McMillan, 1988; Schulze *et al.*, 1988; Thompson and Winsauer, 1985) and also to repeated acquisition studies using humans subjects with other drugs which had demonstrated selective effects on acquisition but not performance (Bickel *et al.*, 1991; Higgins *et al.*, 1987; Thompson and Moerschbaecher, 1979).

Summary. Although several studies have documented that marijuana can affect memory, the acute effects of this drug are typically modest, at least in comparison to effects reported with other behaviorally-active drugs. Free recall, in which to-be-learned items and their recall occur with marijuana present, is often impaired, and the major impairment is often reflected by intrusions of novel items. Also, the few studies evaluating the recall of prose material have generally reported deleterious effects of THC. Marijuana effects upon recall in the digit-span, recognition, and paired-associate tasks have, however, been inconsistent. Typically, once something is learned, recall is little impaired by marijuana if marijuana is present only during recall. As such, the weight of the available evidence relating the acute marijuana use to memory impariment suggests that the effects are inconsistent and of small magnitude, at most. However, it is equally important to recognize that many questions have been left unanswered by studies which have examined

marijuana's effects on memory. The answers to these questions could prove critical to understanding the ramifications that marijuana use may have upon human memory.

In contrast, marijuana reduces acquisition efficiency when new information is presented following marijuana administration, at least in humans. While the parameters under which this disruption occurs remains unclear, it is certainly possible that an initial acute impairment in learning could result in recurring problems for a student, given the cascading nature of our educational system. In addition, repeated use of marijuana by students who are continuously presented with new information in school settings could produce a significant educational handicap if acquisition is disrupted or delayed on a recurring basis.

Effects of Marijuana on Temporal Processing

With considerable consistency researchers prior to the 1980s have reported that marijuana can alter temporal processing (for reviews, see Chait and Pierri, 1992; Klonoff, 1983). Experimentally, temporal processing has been addressed using three methods: temporal estimation, production, and reproduction. Temporal estimation requires a subject to verbally estimate (in seconds, minutes, etc.) the duration of an interval between two events produced by the experimenter. In temporal production, the subject is required to initiate two events separated by an interval whose duration is intended to match a specified duration indicated by the experimenter. In temporal reproduction, the experimenter initiates two events separated by an interval, the subject is then required to first estimate the duration of this interval and then must reproduce the interval by inserting it between two, self-initiated events.

Generally, these earlier reports have indicated that the perception of time occurring between events is accelerated during marijuana intoxication in that time estimates of durations intervening experimenter-generated events are overestimated during temporal estimation tasks (*e.g.*, Cappell and Pliner, 1973; Jones and Stone, 1970), while subject-generated intervals of time intended to match temporal targets are under-produced during production tasks (*e.g.*, Carlini *et al.*, 1974; Vachon *et al.*, 1974; Bachman *et al.*, 1979). Marijuana effects in temporal reproduction tasks have been less well studied. In one study involving a temporal reproduction task marijuana use failed to significantly affect performance (Dornbush *et al.*, 1971).

More recent studies have also reported that acute marijuana use can affect temporal processing. Hicks and colleagues required four male marijuana users to depress foot pedals for durations that subjects estimated were equivalent to 5, 10, 20, 30 or 45 s (Hicks *et al.*, 1984). The subjects were tested in this temporal production task before, and at 30, 60, and 120 min after either smoking a placebo or a 1.29 or 4.61% THC-containing cigarette. The subjects were explicitly instructed not to count or to otherwise "mark time" during these tasks. The results indicated that the subjects under-produced durations relative to target durations following the smoking of either concentration of the THC-containing cigarettes relative to placebo marijuana.

Because marijuana can impair memory functions (see above), Hicks and colleagues tested whether the under-productions of durations they observed in their first study were attributable to the disintegration of memory for a duration after it had passed. In this study, three male and three female experienced marijuana users smoked either placebo or 1.0% THC-containing cigarettes. A block of time-production trials was administered to the subjects before and at 15, 45, and 80 min post-smoking. During these trials the subjects were required to count silently at a subjective 1-s rate to 120 and to say "30," "60," and "120" as they were reached. The experimenter recorded the actual clock duration at each of these reported time points. It was predicted that counting would eliminate the possibility that memory loss could mediate under-productions of time. Despite the fact that subjects counted during the time production trials, smoking the THC-containing cigarettes, resulted in under-productions of interval. These results led the authors to conclude that the THC-induced impairments of time production were evident as time passed and not solely in the memory for a duration after it had passed (Hicks *et al.*, 1984).

Other recent studies have examined the effects of marijuana upon temporal processing. Chait and colleagues (Chait, 1990; Chait *et al.*, 1985)

examined the effects of smoking marijuana on performance in time production tasks in experienced marijuana users. In one study, 14 male, experienced marijuana smokers took five standardized puffs from each of two cigarettes containing either placebo or 2.9% THC, and were given a test battery which included a time production task 20 minutes before smoking the first cigarette, 25 minutes after the first cigarette, 20 minutes before the second cigarette, and 25 minutes after the second cigarette. In addition, the subjects were tested 30 minutes upon awakening the next morning to determine if there were "hangover" effects attributable to the previous evening's marijuana use. For the time production task, the subjects were instructed to produce a 10-s time interval by saying "START" and then "STOP" when they believed 10 s had elapsed. Following this "10-s test", the subjects were required to take another test only at the longer interval of 30 s. Marijuana but not placebo significantly shortened produced intervals relative to real time during the 30-s tests. Time production was not altered by marijuana during the 10-s tests. Contrary to these acute marijuana effects for under-producing time intervals, when tested the next morning following smoking, time intervals were significantly longer during both the 10-s and the 30-s tests following marijuana but not placebo smoking.

The "morning after" effect by marijuana of lengthening produced intervals, relative to placebo (Chait *et al.*, 1985), was not replicated, however, in a subsequent study by these researchers (Chait, 1990). In this latter study, 12 regular marijuana smokers either received 40 standardized puffs of placebo or of a 2.1% THC-containing cigarette distributed during the late afternoon and evening hours of a weekend (Friday evening – Sunday evening). The subjects were given a battery of tests including a time production test each morning following an evening of smoking. During time production tests, subjects were to indicate "30", "60", or "120" when they believed that 30, 60, and 120 s had elapsed since an experimenter-initiated signal. Subject-produced intervals were longer than targeted intervals during the mornings following both placebo and marijuana smoking. The subject-produced intervals were significantly shorter during the morning following marijuana, relative to placebo smoking, however, which was an effect opposite to that seen during their earlier findings (Chait *et al.*, 1985). The authors suggested that additional study, preferably including multiple methods of evaluating human time perception, was required before the determinants of this discrepancy could be isolated.

Perez-Reyes and colleagues (Perez-Reyes *et al.*, 1991) examined the disruptive effects of smoking marijuana upon time estimation and production (see above in discussions of marijuana effects upon memory for additional details). In their study, subjects smoked six pipe bowls of 0.4 mg/kg marijuana containing 2.57% THC separated by 1-minute intervals. At 30 min prior to, and at 30, 60 and 120 min following smoking the subjects were given time estimation and time production tasks. In the time estimation task, a computer delimited a time interval and the subject was required to estimate its duration. In the time production task, the computer stated a verbal standard in time units and the subject attempted to delimit the interval. THC had a profound effect on time estimation and production, as well as increased the subjective "high" and heart rate.

Summary. Marijuana appears to accelerate time in that when subjects are asked to produce a given interval they under-produce the target interval, and when asked to estimate the interval occurring between two experimenter-delimited events, they over-estimate it. Future research will likely further clarify the conditions under which marijuana impairs temporal processing, and also the potential dissociation of marijuana's effects upon temporal information processing from its effects upon the processing of other information. As such, marijuana use may have detrimental consequences for human behavior under conditions in which temporal processing is an important dimension.

Marijuana and Social Behavior

Drugs alter a number of dimensions of human social behavior (*e.g.*, Stitzer *et al.*, 1981b). Under controlled conditions, dose-related changes in a variety of social behaviors, including verbal, cooperative and aggressive behaviors have been identified.

A series of studies of the effects of drugs on human verbal behavior have been conducted by Stitzer and colleagues. Most drugs of abuse, including alcohol, stimulants, barbituates and opiates increase human verbal behavior (*e.g.*,

Higgins and Stitzer, 1988; Stitzer *et al.*, 1981a; Stitzer *et al.*, 1978; Stitzer *et al.*, 1984). It has been suggested that the reinforcing effects of drugs may be influenced by such changes in verbal behavior (*e.g.*, Stitzer *et al.*, 1981b). Higgins and Stitzer examined the effects of marijuana on verbal responding by one member of a social dyad (Higgins and Stitzer, 1986). Male and female occasional marijuana users (more than one smoking occasion per month) smoked marijuana (0, 1.01, 1.84 and 2.84% THC) using a paced smoking procedure. Both members of a dyad smoked marijuana cigarettes, but only the subject (determined arbitrarily) received THC. Sixty-min experimental sessions began 2 min after marijuana administration. Experimental sessions occurred three times per week, and each subject received each dose prior to one session. Both members of the dyad wore voice microphones during sessions, allowing for automated measurement of speaking duration. Prior to the study, dyads participated in daily practice sessions until stable rates of verbal responding were observed across sessions. Subjects were paid for participation, but no other experimentally-programmed consequences for verbal responding were reported. Dose-related decreases in speaking duration were observed. These same doses produced increases in heart rate and verbal ratings of "high." In contrast, under similar experimental conditions, other drugs with abuse liability (*e.g.*, alcohol, stimulants, opiates) produced increases in human verbal behavior.

Heishman and Stitzer extended the analysis of effects of marijuana on human verbal behavior by determining whether marijuana influenced the reinforcing efficacy of verbal interaction (Heishman and Stitzer, 1989). Male marijuana users (78% reported using marijuana on more than one occasion per month, and these subjects averaged 2.6 occasions of use per week) smoked marijuana (0, and 2.7% THC) using a paced smoking procedure consisting of 8 puffs (ad libitum duration) with 10-s breathhold and 40-s inter-puff intervals. Subjects participated in six sessions, each consisting of four 30-min trials. Trials occurred in isolated rooms and consisted of 10 discrete choices. Each choice determined whether or not speaker headphones, which allowed verbal interactions with another person located in a different room, would be operative for the next 3-minute. Only the subject smoked marijuana cigarettes and the other person was instructed to be ready to talk when the subject activated the headphones. Choice behavior and speaking duration were monitored. Dyads did not practice prior to the study, and subjects were paid for participation, but no other experimentally-programmed consequences for headphone choice or speaking duration were reported. Modest decreases in speaking durations and headphone-on choices were observed, but these changes were not statistically significant. These same doses produced increases in verbal ratings of "high," "liking," and "drug effect." In summary, these results suggest that at pharmacologically-active doses, marijuana produces minimal change in subject preference for engaging in verbal interaction.

The effects of marijuana on social behavior and verbal interaction have also been investigated by Fischman and colleagues in residential studies examining the effects of marijuana on multiple dimensions of human behavior, including food intake, tobacco cigarette smoking, allocation of time to available activities, and task performance rate and accuracy (for overview see, Kelly *et al.*, 1990). In these studies, groups of three male subjects were exposed to standardized daily schedules for the duration of a study (typically 10-18 days). Subjects remained socially isolated while participating in a variety of work tasks every day from 9:00 a.m. until approximately 5:00 p.m. Between 5:00 p.m. and bedtime (midnight), subjects could engage in a variety of recreational activities alone in their private areas or in a common social-access area. During the social-access period, trained monitors recorded the amount of time spent in social areas in the presence of other subjects (social interaction), as well as the amount of time subjects spent speaking to each other (verbal interaction). Subjects were required to remain in their private areas sleeping or resting in bed between 12:00 a.m. and 9:00 a.m.

Using the general conditions of the residential studies described above, Foltin and colleagues (Foltin *et al.*, 1989a) investigated the effects of marijuana on social and verbal interaction in four groups of subjects (22 to 38 yr old) who were occasional marijuana users (2 cigarettes per week to 3 cigarettes per day). Four identical marijuana cigarettes (0 or 1.84%) were smoked per day, using a paced smoking procedure consisting of five 5-s puffs with 10-s breathhold and 45-s inter-puff intervals. All

subjects received the same THC concentration (0 or 1.84% THC) each day. Cigarettes were smoked immediately prior to both the work and social-access periods, and two additional cigarettes were smoked during the social-access period at 7:25 p.m. and 10:00 p.m. Every subject smoked both placebo and active cigarettes in 2- or 3-consecutive day intervals. Subjects were paid for participation, but experimentally-programmed consequences for verbal responding were not imposed while data were obtained. Marijuana effects were dependent on the baseline level of verbal interaction. Marijuana increased verbal interaction in three groups that had high baseline levels of verbal interaction, but had no effect on verbal interaction in a fourth group that had low baseline levels of verbal interaction.

In the previous study, few social activities were available that did not require verbal interaction as a requirement of participation. Under these conditions, subjects were 'forced' to interact when they were together. Foltin and Fischman (1988) extended the analysis of marijuana effects on social and verbal interaction by providing a wider variety of social activities during social-access periods, including options that did not require verbal interaction (*e.g.*, watching video-taped movies). In this study, social behavior and verbal interaction did not covary in the manner observed in the previous study. The THC concentration in the smoked marijuana was also increased in this study (0 vs. 2.7% THC). Two groups (19 to 30 yr old) of three occasional marijuana users (2 cigarettes per week to 3 cigarettes per day) smoked four identical marijuana cigarettes per day as in the previous study. Cigarettes were smoked immediately before and half-way through both the work and social-access periods. Subjects were paid for participation, but experimentally-programmed consequences for verbal responding were not imposed while the data were collected. In both groups, regardless of baseline levels of verbal interaction, marijuana decreased verbal interaction but had no affect on the amount of time subjects spent under social conditions. When subjects smoked active marijuana they spent equal amounts of time with each other, but they spoke less frequently. It remains unclear whether this outcome was related to the higher potency of the marijuana cigarettes used in this study, or to the separation of social and verbal interaction afforded by the wider range of social activities.

Rachlinski examined interpersonal space between subjects in the previous study as a function of smoked marijuana (Rachlinski *et al.*, 1989). Interpersonal space was operationally defined as the physical distance between subjects who were interacting socially, and was measured from the locations of subjects when they were interacting socially. Marijuana-induced decreases in verbal interaction reported in the previous study were associated with increased interpersonal distances indicating that subjects kept greater distances between themselves when socially interacting following active marijuana administration.

In a recent study Kelly and colleagues described marijuana's effects on social and verbal behavior when the drug was self-administered (Kelly *et al.*, 1994b). When subjects self-administered active marijuana, social behavior was not changed, but verbal interaction was again decreased. When placebo marijuana was self-administered, changes in social or verbal behavior were not observed.

The effects of marijuana on aggressive behavior have also been investigated. Myerscough and Taylor investigated the effects of marijuana on human aggressive behavior using a well-standardized laboratory procedure (Myerscough and Taylor, 1985). Thirty male subjects participated in experimental sessions consisting of 33 competitive signaled reaction time trials. The competitor was an experimental confederate. Prior to each trial, subjects selected a shock intensity to be delivered to the other participant. High intensity shocks were selected on every trial throughout each session by experimental confederates. After each trial, the participant (*i.e.*, subject or experimental confederate) with the slower reaction time ostensibly received the shock selected by the other participant. Feedback lights were illuminated after each trial to indicate the intensity of shock selected by the experimental confederate. Aggressive behavior was operationally defined as the delivery of a noxious stimulus to another individual (shock intensities selected by subjects prior to each trial). Subjects were randomly assigned to low, moderate or high dose groups, and 50 minutes prior to an experimental session consumed beverages containing 0.10, 0.25 or 0.40 g/kg of THC, respectively. Subjects were paid for participation, but experimentally-programmed consequences for shock-intensity choices were not imposed. Practice was not provided to subjects

prior to the first session. Shock intensity selections were inversely related to THC dose. Similar results were obtained in an earlier study using similar dosing conditions and experimental procedures (Taylor *et al.*, 1976).

This same paradigm has been used extensively for the investigation of the effects of alcohol on human aggressive behavior. In contrast to marijuana's aggression-reducing effects, dose-related increases in shock-intensity selections have generally been reported following alcohol consumption (*e.g.*, Taylor and Gammon, 1976; Taylor *et al.*, 1979).

Cherek and colleagues (Cherek *et al.*, 1993), using a differnt laboratory procedure, also examined the effects of marijuana on human aggressive behavior. Eight male subjects, 19 to 39 yr old, who reported using marijuana between one and four times per month, participated in six 25-min sessions per day over an 8-hr day. During sessions, subject responses on three different levers were maintained by points which could be exchanged for money, escape from point subtractions, or ostensibly subtracting points from another participant depicted as participating in the study at another location, respectively. Administering a noxious stimulus (point subtraction) to another individual served as aggressive behavior in this procedure. A computer was programmed to simulate the other participant; periodically during sessions, points were subtracted from the subject, and these point subtractions were attributed to the other participant. One marijuana cigarette (0, 1.75, 2.57, or 3.55% THC) was smoked 15-min before the second session according to a paced-smoking procedure. Cigarette smoking consisted of ten 3-s puffs, with 10-s breathholds and 17-s inter-puff intervals. Each subject smoked every dose on two experimental days, with 72 hr separating successive active dose days. In this procedure, marijuana increased aggressive responding and decreased responding maintained by point presentations. No drug effects were observed on escape responding. The 2.7% THC and 3.57% THC doses affected behavior for 0.5 and 2 hr after drug administration, respectively. In contrast to the effects of marijuana, Cherek and colleagues have generally found that alcohol increases human aggressive behavior using this laboratory procedure (*e.g.*, Cherek et al., 1985).

Clear differences in route of THC administration and experimental procedures were observed between these two experimental studies of the effects of THC on human aggressive behavior. Additional studies will be required to understand the relationship between THC, environmental context, and human aggressive behavior.

The effects of marijuana on human cooperative behavior have also been examined in a series of two residential and one non-residential study (Kelly *et al.*, 1992). During daily work and social-access periods, subjects had access to time-based preferred and non-preferred activities, including the DSST (see above). Access to preferred activities was contingent upon the availability of points that could be acquired while participating in non-preferred activities. While participating in non-preferred activities, each subject could choose to distribute points equally between all three group members (cooperative behavior) or to keep earned points for himself (non-cooperative behavior). Three groups of adult male subjects (21 to 38 year old) who reported regular use of marijuana (0.5 to 35 occasions per week) participated. Social-access and work periods were 3 or 6.5 hour in duration. Marijuana cigarettes (0.00 or 2.28% THC) were smoked prior to each period, and a second cigarette was smoked half-way through the 6.5 hour periods. Cigarettes were smoked using a paced smoking procedure consisting of five, 5-s puffs with 10-s breathhold and 45-s inter-puff intervals. Daily schedules and conditions associated with engaging in cooperative behavior varied across studies, and subjects were trained on all aspects of the study prior to the first day. Marijuana disrupted DSST performance and increased verbal-reports of drug effect, but had no affect on cooperative behavior.

Summary. Although relatively few studies have been conducted on the effects of marijuana on social behavior, clear changes in verbal and aggressive behavior have been reported following marijuana use. In addition, the effects of marijuana on social behavior can be influenced by social context. Given the relevance of social context in many legal issues, it is unfortunate that our understanding of marijuana effects on social behavior is so limited. Much of the behavior of humans occurs in social context, and social variables can also influence many dimensions of behavior, in addition to

social behavior. For example, memory and/or psychomotor performance can be influenced by social context. Given the potential importance of social context and social behavior, additional studies manipulating social variables in the study of the behavioral effects of marijuana is of central importance.

Summary and Conclusions

Evidence presented in this review clearly indicates that marijuana produces effects on psychomotor performance, memory and learning, temporal processing, and social behavior. Where marijuana has been shown to have effects, almost invariably these effects have been construed to be detrimental. Considering that the experimental behaviors studied are likely correlates of components of more complex, integrated day-to-day behavior, marijuana use should be viewed as potentially disruptive to education, work performance, and a variety of behaviors involving complex psychomotor control, such as driving an automobile.

The available evidence also clearly demonstrates that the amount of THC is an important determinant of the magnitude of marijuana effects. However, it is often difficult to ascertain what the actual dose is in many experimental studies and to subsequently extrapolate this dose to real-life usage. For instance, although the concentration of THC and the weight of cigarettes smoked is usually provided in studies involving smoked marijuana, the actual amount of THC delivered can be variable due to variability in smoking topography. Studies controlling the volume of smoke inhaled, breathold duration, and those which assay plasma THC levels provide the clearest evidence for dose-response relationships, but since very few such studies have been reported, clear associations between blood levels of THC and behavioral effects are not well established.

Although not specifically considered in this review, practical issues involving the association of marijuana use with behavioral impairment are also apparent from these studies. Detrimental effects of marijuana use on human behavior have been well established, but these effects can be observed for only a limited interval of time following drug administration, with the duration of impairment related to a number of factors, including route of administration and dose of THC. Next-day, or residual effects have been reported, but effect sizes have been small, factors that may influence performance have been difficult to control, and significant findings have not often been replicated. Whether marijuana produces residual impairment has not been firmly established.

Biological sample testing has improved over the past 10 years, and given that appropriate standards are maintained in the collection and testing of such samples, prior use of marijuana can be established with acceptable validity. However, due to the length of time that the metabolites of THC remain in the body, the 'window' of time in which prior marijuana use can be established with accuracy may vary, based in part on the type of sample being tested. For example, while THC can be detected in blood samples for several hours after marijuana administration, THC metabolites can be detected in urine samples for several days.

The 'window' of time in which marijuana produces acute behavioral impairment is similar to the 'window' of time in which THC is in the bloodstream. If acute marijuana-induced impairment is occurring, measurable levels of THC should be available in blood. However, the presence of THC in the bloodstream is not, by itself, sufficient to demonstrate acute marijuana-induced performance impairment. The absence of THC in blood, on the other hand, would suggest that performance was not acutely affected by marijuana or THC. In contrast to blood, urine samples provide limited information with regard to the acute performance effects of marijuana. While the presence of THC metabolites in urine may indicate prior marijuana use, it is not, by itself, sufficient for associating marijuana use with behavioral impairment. As such, the relationship between biological sample testing and behavioral impairment is complex in the case of marijuana, and detection of marijuana use should not be confused with detection of behavioral impairment associated with that use.

Although experimental studies have identified many effects of marijuana administration, it is difficult to predict how, and to what degree these effects could disrupt day-to-day functioning, especially in inexperienced users. One complicating factor is that most experimental studies which have examined the acute effects

of marijuana have used experienced marijuana users as subjects. The drug histories of these subjects are often difficult to accurately document. Previous experience with marijuana can possibly attenuate its acute effects through a variety of tolerance mechanisms, or might even result in an exaggerated response, relative to a naive user, through accumulated toxicity. Our understanding of these processes are limited at the current time.

In the past 6 years, rapid advancements have been occurring in our understanding of the neurobiological basis of the effects of cannabinoids. Cannabinoid receptors in the central nervous system have been identified, and research into the anatomical and functional significance of these receptors is advancing at a rapid pace. In addition, endogenous ligands that interact with these receptors have also been identified. However, our current understanding of the implications of these cannabinoid receptors and of the naturally-occurring ligands for human behavior is still very limited.

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CHR's Drug Treatment Programs for Juveniles

BASIC BACKGROUND

The Cabinet for Human Resources Drug Treatment Program is under Title 908 of the KAR. The chapter on residential rehabilitation centers is 908 KAR 1:230 and the nonresidential day care centers are regulated under 908 KAR 1:240.

ABOUT THE CENTERS:

The Cabinet for Human Resources handles the drug treatment program through the Division of Substance Abuse which is in the Department of Mental Health. The contact person is currently Hugh Spalding, the Branch Manager of the Division of Substance Abuse. Paul Gibson, Assistant Director for Children's Residential Services, has information on the CHR programs for committed drug offenders.

HOW DOES THE CHR DRUG TREATMENT PROGRAM WORK?

- The Cabinet contracts with fourteen (14) Community Mental Health Centers.
- These fourteen Community Mental Health Centers submit an annual plan and budget.
- These plans and budgets serve as the basis for the contract with the Division of Substance Abuse.
- The Juvenile Drug Treatment Program is handled under the "Priority Population" section of the submitted plan and budget.
- Another example of a "Priority Population" would be women.

THE NUMBER OF RESIDENTIAL BEDS AVAILABLE

- The fourteen Community Mental Health Centers offer together a total of forty-seven (47) beds for treatment. This means that only a portion of the treatment centers offer residential services.

However all of the 13 CHR facilities for committed public and youthful offenders have drug treatment programs. CHR estimates that 90% of committed juveniles have some significant exposure to drugs and alcohol.

TRAINING/CREDENTIALS OF STAFF

- Most of the staff at the Community Mental Health Centers hold at least a Bachelors degree and some hold graduate degrees.
- In addition under 908 KAR 2:060 to be a qualified substance abuse professional a person must meet the qualifications of the Kentucky Chemical Dependency Counselor's Professional Certification Board, Inc. Not all staff in the centers, have gone through the Certification Program.
- At the 13 facilities for committed youthful and public offenders only a total of 12 staff members have the required chemical dependency counselling certification. Twenty staff members are currently working toward certification.

METHODOLOGIES USED IN TREATING DRUG OFFENDERS

- Several strategies are used at the Community Mental Health Centers. Treatment includes assessment, treatment planning, matching the person with the appropriate treatment, outpatient service, Intensive outpatient service, Residential treatment and Detoxication.
- All committed juveniles are to receive drug and alcohol education. Treatment includes group, individual and family counselling. Counsellors try to teach the children to make more logical choices and to develop a rehabilitative plan that includes avoidance of drugs and alcohol. Part of the therapy requires that the child keep a journal.

DISTINCT PROGRAM FOR USERS VERSUS SELLERS?

- The programs do not distinguish between users and sellers.

YOUTHFUL OFFENDERS VERSUS PUBLIC OFFENDERS

- Youthful offenders appear to go through the same treatment as public offenders.

OTHER STATES CHR LOOKS TO:

- Hillcrest and Lighthouse consult Janice Gabe, who is out of Indianapolis, Indiana.
- Tammy Bell is also used as a consultant and she is out of Charlotte, North Carolina.
- They also base programs on those in the states of South Dakota and Minnesota.

THE BASIC WRAP-UP

Treatment may be sought for children with or without a commitment to CHR, in the fourteen facilities listed below. If the child is committed by the court as a public offender s/he will receive *some* treatment at one of the 13 camps or residential treatment facilities for public and youthful offenders (*i.e.*, Central, Johnson-Breckinridge, Green River Boy's Camp). The 14 community mental health programs listed below generally have a nominal fee for admission, but will acccept youth on an ability to pay basis. They may not accept a child with a significant history of violence or severe mental disability.

Obviously centers closest to major cities seem to have more facilities and more treatment options. The basic consensus seems to be that all centers are under staffed and under funded.

FOURTEEN COMMUNITY MENTAL HEALTH PROGRAMS

1. BLUEGRASS EAST THE TEEN POP PROGRAM

- Servicing Fayette County
- Provides intensive outpatient services for adolescents and ongoing therapy for family members, particularly parents
- Targets substance abusing youth
- The program has a need for intensive outpatient and residential services for adolescents.

2. THE ADANTA GROUP

- Servicing the Cumberland, Adair and Monticello Area
- Outpatient Services available at 10 outpatient clinics within the region.
- Case Management services are provided on a limited basis because counselors must spend the majority of their time providing therapy.
- Residential services for adolescents are needed and have been requested.

3. CENTER SERVING THE HARLAN, KNOX,WHTLEY, AND LAUREL

- Provided services through the youth service centers and the family service centers
- Most adolescents are seen in the school setting
- The juvenile population in this region still needs residential treatment programs, transitional living, intensive outpatient programs and case management for the juvenile priority population.

4. THE K RIVER CENTER

- Student Assistance Program in Leslie County
- No residential treatment available
- One counselor, specializing in adolescents issues, developed programs with the courts and school system in Perry (Hazard) and Leslie (Hyden) Counties.
- An Adolescent Diversion Program was instituted in January 1993 and has been ongoing in Leslie (Hyden) and Perry Counties, with plans for additional therapist training and expansion into Knott (Hindman) County.

5. THE MOUNTAIN COMPREHENSIVE CARE CENTER

- Outpatient service

- Intervention Programs through schools and the Big Sandy Juvenile Detention Center.
- No residential treatment is offered

6. PATHWAYS, INC.

- Located in Mt. Sterling, services statewide referrals publicly funded.
- Uses case manager/treatment specialist
- Also uses the Hillcrest Hall, a residential, phased treatment facility with treatment ranging in duration from three months to one year in length.

7. NORTHERN KENTUCKY

- Outpatient services
- Previously had residential service, but is currently unavailable.

8. BUFFALO TRACE REGION

- Provides services basically through the school system - Wish to be able to fund case management services.

9. HARDIN, NELSON, MARION AND BRECKINRIDGE

- Effort to develop outpatient groups were not extremely successful in the past year. Currently has no specific funding for the juvenile population.

10. JEFFERSON COUNTY

- Outpatient support groups in the rural sites.
- Court Diversion Programs in Jefferson and Bullitt County
- The Lighthouse Adolescent Services 16 bed residential/transitional program serving male and female youth from seven counties, publicly funded.

11. LIFESKILLS

- Adolescent Case Management Program
- Youth also reached through the Juvenile Courts, DSS, Court Designated Workers - Treatment to adolescent substance abusers provided at the Park Place Outpatient Center in Bowling Green and at the Barren County Counseling Center in Glasgow.

12. GREEN RIVER COMPREHENSIVE CARE CENTER

- 7 adolescent treatment beds available if they have pre-existing medical cards.
- Average stay is 6 weeks.
- Also offers a full-time outpatient staff who is working three days a week out of the Ewing Road complex providing outpatient service to adolescents.

13. WESTERN KENTUCKY

- Has no regional facility for youth needing residential care.
- Present outpatient staff will have difficulty adequately responding to all youths needing substance abuse counseling.
- Provides substance abuse services for youth at all of their outpatient office sites: Barlow, Bardwell, Benton, Clinton, Fulton, Mayfield, Murray, Paducah, and Smithland.

14. PENNYROYAL CENTER

- Services Christian County and surrounding area.
- Provides outpatient treatment through the area clinics primarily involved in individual and family therapy which may be supplemented by participation in 12-step groups, publicly funded.
- Youth Recovery Center serves chemically dependent adolescents who require more structure and are transitioning from other levels of treatment. The Center has the capacity to house 8 adolescents.

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Funds for Experts in Drug Cases

This is the ninth in a series of articles addressing funds for independent defense expert assistance in light of the substantial new funding available statewide under 1994 amendments to KRS 31.185 and 31.200.

- **Benign Neglect**
- **Functions of Experts and Stages of Use in Drug Cases**
- **10 Factors for the Full Factual & Legal Showing**
- **Persuasive Themes**
- **Testing of Substance**
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Objectivity

Those who think they are the most objective are probably the least objective of all.

- Edmund Teller

When your drug (drug is used to include alcohol) case dictates a need for a defense expert, there is caselaw to support your request for funds to employ one. Some of the supporting legal reasoning and authority is discussed in this article for DUI cases (KRS Chapter 189A), controlled substance cases (KRS Chapter 218A), and for pretrial issues such as suppressing a confession. Also discussed are cases involving the influence of drugs on behavior as a defense to the crime and as mitigation of punishment.

Benign Neglect

In a section entitled "Policy of 'Benign Neglect,'" Edward Fitzgerald and David Hume in their work *Intoxication Test Evidence: Criminal & Civil* (1987) rightly recognize that criminal defense attorneys have benignly disregarded challenges to assumptions, myths and presumptions used against their clients in drug cases.

"We are now, however, as a profession, suffering from those years of 'benign neglect.' Many poor practices developed in the field, the majority of which were generally favorable to the prosecution, and which were allowed to slip by unchallenged. Overinterpretation of the significance of a given BAC; failure to relate the later test BAC back to the 'offense' time; failure to save a sample for independent testing; failure to obtain a second test sample about an hour after the first; failure to allow for individual differences -- these are but a few of the commonplace practices now 'accepted' as normal and routine. Now, however, the trial bar has been forced to 'find' qualified experts to defend tough cases, and a learning process has been underway. Once used, and once educated by that use, criminal and civil attorneys tend to turn to those same experts more readily, even for the simple OUI cases as well. Inevitably, more 'close' cases will be won than had been the case for many years, and many unacceptable prosecution practices will end up being challenged with renewed vigor by the trial bar. Many civil liability cases, which in the past would have been conceded without a fight by

many attorneys as soon as that damning post-accident or post-mortem BAC made its appearance, will now (quite properly) be vigorously investigated and pursued by counsel who have been forced to become knowledgeable about an area he or she had previously ignored. Many individuals not previously involved directly in this area (physicians, chemists, toxicologists) have now become involved as experts, as will others in the future." *Id.* at §13:3, p. 623.

Functions of Experts and Stages of Use in Drug Cases

There are various ways experts can be used at different stages of the proceeding. Experts in drug cases can serve a variety of defense needs:

1) **Finding.** Investigation;
2) **Analyzing.** Evaluation, testing;
3) **Testifying.** Testifying to advance a defense or mitigation;
4) **Rebutting.** Testifying to rebut a prosecution expert or to rebut aggravation;
5) **Consulting.** Consultation on preparation of cross-examination of the state's expert(s), or consultation on what type of experts to use.

The experts can provide their help at different stages of the criminal proceeding:

1) **pretrial**, *e.g.*, suppression of confession;
2) **trial**, *e.g.*, mental state, nature of the substance;
3) **penalty phase**, *e.g.*, mitigation;
4) **sentencing**, *e.g.*, degree of penalty, why the defendant takes drugs.

10 Factors for the Full Factual & Legal Showing

An effective demonstration of the reasonable necessity for funds for defense expert resources in drug cases will likely involve an evidentiary showing of the following ten dimensions:

1. type of the expert (*e.g.*, toxicologist, mental health, chemist, pharmacologist);
2. nature & stage of assistance;
3. the name of the expert who will provide the help, qualifications of that person;
4. reasonableness of the rates and total expected cost;
5. factual basis for the resources *in this drug case* including how the expert's help is critical to your theory of the case and relevant themes;
6. counsel's observations, knowledge, insights about *this drug case* and *this defendant*;
7. legal bases for expert *in this drug case*;
8. legal reasons for *defense* drug resources;
9. inadequacy of state resources, or unavailability of state resources; and

10evidentiary documentation.

For further information on making this threshold showing see "Persuading and Preserving," *The Advocate*, Vol. 16, No. 6 (Dec. 1994) at 82.

Persuasive Themes

Persuasive defense themes in drug cases which implicate the need for expert assistance to competently represent the defendant include:

- ♣ Things are not always what they appear to be.
- ♣ Breath-testing machines are based on general presumptions which are fallacious for certain individuals.
- ♣ Machines malfunction.
- ♣ Contamination of samples lessens reliability.
- ♣ Humans make mistakes.
- ♣ All testing by experts involves substantial judgment by humans.
- ♣ Drugs/Alcohol influence a person's behavior and mental state.
- ♣ Truth can be stranger than fiction.
- ♣ Certainty is impossible.
- ♣ True objectivity is difficult to come by.
- ♣ The right to test is meaningless to an indigent without authorization of funds to employ an expert.

Testing of Substance

In most jurisdictions, a criminal defendant is routinely entitled to access the material evidence in possession of the prosecution in order to examine, analyze or test it.

In Kentucky it is clear that a criminal defendant is entitled to material evidence to analyze and test. In *James v. Commonwealth*, 482 S.W.2d 92 (Ky. 1972) the Court held that the defense in an illegal sale of narcotics prosecution was entitled to inspect the reports of the prosecution expert and to have a sample of the substance to test by the defense chemist. "A cat and mouse game whereby the Commonwealth is permitted to withhold important information requested by the accused cannot be countenanced." *Id.* at 94.

If the evidence has been used up in testing by the prosecution expert or destroyed by the prosecution, the defense is entitled to a copy of the expert's notes. In *Green v. Commonwealth*, 684 S.W.2d 13 (Ky.App. 1984), a Schedule II controlled substance (dilaudid) case, the Court recognized that "the right to testing is implicit under RCr 7.24." *Id.* at 16. In *Green*, the prosecution's forensic chemist unnecessarily but unintentionally consumed the entire tablet so the defense was not able to obtain anything to have independently tested. The Court held the "results inadmissible, unless the defendant is provided a reasonable opportunity to participate in the testing, or is provided with the notes and other information incidental to the testing, sufficient to enable him to obtain his own expert evaluation." *Id.* at 16.

In most cases the defense will need their own expert to either retest the substance or review the notes of the prosecution expert in order to render an opinion.

In *Patterson v. State*, 232 S.E.2d 233 (Ga. 1977) the defendant was convicted of possession of marijuana and sentenced to 2 years and $2,000. The Court recognized "the general right of a defendant charged with possession or sale of a prohibited substance to have an expert of his own choosing analyze it independently. Where the defendant's conviction or acquittal is dependent upon the identification of the substance as contraband, due process of law requires that analysis of the substance not be left completely within the province of the state." *Id.* at 234.

Failure of the defense to obtain the right to analyze and test the alleged substance is fraught with various dangers. See Leo G. Smith, "Defending Drug Cases," *The Advocate*, Vol. 18, No. 1 (January 1996) at 22-32.

"The identification of controlled substances is generally made using validated methods that have been accepted by the FBI, DEA, EPA, and FDA, as well as pharmaceutical companies, private laboratories, and by some police labs. Surprisingly, many police laboratories fail to use these validated methods and rely instead on procedures and methods of substance analysis which are suspect and imprecise." James J. Martorano & Dr. Mark Solomon, *Drug Evidence and Scientific Testimony: Rigorous Advocacy Put to the Test*, NLADA Cornerstone, Vol. 14, No. 4 (1992/1993) at 1-2. Martorano and Solomon detail "six standards that must be met to establish a scientifically validated result":

1. Separation technique of the substance;
2. Objective identification;
3. Reference standard;
4. Validated methods and applied procedures;
5. Recording of analysis;
6. Analyst must have necessary experience, education and proficiency.

As an example, the following are areas of potential errors in the use of gas chromatography and mass spectrometry:

"1. Are there overlapping peaks?
2. Has the analyst been misled by a detector or is the analyst a recorder of poor quality?
3. Has the analyst properly assigned mass unit numbers to the various peaks?
4. Did the analyst incorrectly disregard a peak?
5. Has the analyst chosen the wrong parent peak?
6. Has the analyst properly interpreted the spectrum reading?
7. Do the possibilities of misjudgment lead to reasonable doubt in a criminal trial?"

John A Tarantino, *Strategic Use of Scientific Evidence* (1988) §8.23.

"The greatest possibility for error comes at the time of the subjective interpreation of the mass spectrum." *Id. See also* Imwinkelreid, *Jackson v. Virginia: Reopening the Pandora's Box of the Legal Sufficiency of Drug Identification Evidence*, 73 Ky.L.J. 1 (1984-85).

Because of the potential for error, courts understand that indigent defendants are entitled to funds to hire experts to test and analyze the substances in question.

In ***State v. Hanson***, 278 N.W.2d 198 (S.D. 1979) Terry Hanson was convicted of 5 counts of distributing marijuana. The trial judge refused to permit the defense to have access to the alleged controlled substance for testing, and refused to order funds for an independent expert to test it on behalf of the defense.

The South Dakota Supreme Court held that in order to "confront the evidence against him" and be able to "prepare an adequate defense, the indigent defendant must be provided "an independent expert to evaluate the substance in question...." *Id.* at 200-01.

The justifying rationale of the Court was straightforward. The "defense cannot challenge an expert's determination with anything other than another expert. The defendant thus cannot lay any foundation for appointment of an expert other than to allege that he doubts the veracity of the State's tests, and believes that an independent test is essential.... It would be an empty gesture to give defendant a sample of the alleged marijuana, while at the same time refusing to provide an independent expert to evaluate it." *Id.* at 201.

In ***McBride v. State***, 838 S.W.2d 248 (Tx.Ct. Crim.App. 1992) (en banc) Israel McBride was convicted of possession of cocaine, a controlled substance, and sentenced to life. The indigent defendant's request that the trial judge appoint a chemist to scientifically examine the substance and perform qualitative analysis of it was unsuccessful.

The en banc appellate court held that the defense was entitled to appointment of a chemist to examine the substance. The court found that under *Gideon* and *Ake*, "to meaningfully participate in the judicial process, an indigent defendant must have the same right to inspection as a non-indigent defendant." *Id.* at 252.

McBride's defense was that the substance was planted on him by another to avoid prosecution. The defendant believed the purity of the substance was material to his defense since a low concentration of cocaine would support his theory of being planted and could support a lack of intent or knowledge. *Id.* at 251 n.7.

DUI

"The focus of public interest is not on the fair and impartial administration of justice. Its interest, fed by the 'one issue at a time' approach of the media, is with the conviction and (preferably severe) punishment of offenders. This, it is believed (every historical precedent to the contrary), will eradicate the problem. In this climate, anyone 'accused' of being 'under the influence' is often presumed 'guilty.' Trial lawyers (individually and as a group) are castigated even for defending such cases, especially if they do so well! Many judges decide cases, and impose sentences, with one finger up to 'test the winds' of public opinion. In such a climate, we have more need than ever for a careful, impartial, objective analysis of the alcohol issues by those who are, and consider themselves, forensic specialists." Edward F. Fitzgerald & David N. Hume, *Intoxication Test Evidence: Criminal & Civil* (1987) at 617-18.

DUI cases involve a number of aspects which frequently call for expert assistance to aid the defense:

- independent testing of the client's blood or urine samples;
- analysis of consumption, ingestion and absorption;
- the effects of alcohol on the body;
- analysis of medical ailments that explain behavior;
- the reliability and validity of breath testing machines.

"The following are commonly-used experts and the types of testimony which can be elicited from them during direct examination:

1. *Physicians:* the defense attorney can call the defendant's physician to testify regarding the defendant's physical disabilities or mental condition. A physician can explain medical problems that resemble intoxication, such as closed-head injuries or diabetes-insulin reactions. In addition, the defense attorney can have a physician perform chemical tests on the defendant immediately after the defendant's release from police custody, and from those results the physician could testify as to the defendant's intoxication.

2. *Pharmacists:* the defense attorney can ask a pharmacist to testify as to the effects of mixing drugs and alcohol.

3. *Pharmacologist:* a pharmacologist can explain to the trier of fact the rates of absorption, distribution, and elimination and relate them to the defendant's condition at the time of arrest.

4. *Analytical chemist:* an analytical chemist can be called to the stand to calculate the probable blood/alcohol level of the defendant at the time of arrest. The defense attorney can also ask the analytical chemist to explain the deficiencies of the breath testing device used.

5. *Ophthalmologist or optometrist:* these experts can testify to other possible causes (besides intoxication) of bloodshot eyes and slow pupil reaction.

6. *Auto mechanic:* the defense attorney can call an auto mechanic to testify as to the possible causes of erratic driving, such as defects in the steering mechanism or imprecise wheel alignment."

Donald H. Nichols, *Drinking/Driving Litigation: Criminal & Civil*, §15:10 (1995).

"Unless the prosecution's case is very weak, an alcohol expert is usually worth having, in both test and refusal cases. A properly trained and qualified expert can not only cast doubt on the reliability of most test evidence, but can also deduce the defendant's presumed BAC on the basis of Widmark's formula, casting doubt on the test result from that approach." Stephen M. Brent & Sharon P. Stiller, *Handling Drunk Driving Cases* (1985) §26:7. Brent and Stiller relate a variety of effective uses of the experts to question the prosecution's charge.

Courts recognize the need for indigents to have funds to hire experts in DUI cases.

In ***State v. Lippincott***, 307 A.2d 657 (N.J. 1973) the indigent defendant was charged with driving while intoxicated. The Court held the accused was entitled to money for the services of an expert witness to testify as to the consumption, ingestion and absorption rate of alcohol and the effects of alcohol on the human body. The opinion reasoned that to appoint an attorney to represent an indigent and then "deny him the means necessary to provide an adequate, proper and complete defense [is] contrary" to equal protection. *Id.* at 658.

In ***Ventura v. State***, 801 S.W.2d 225 (Tex. App. 1990) the Court held that a defendant who was charged with driving while intoxicated was entitled to funds to hire a psychiatrist to review the videotape taken after her arrest and arraignment and offer an opinion on whether the defendant's behavior was due to something other than being intoxicated. The motion for funds stated that the doctor would "relate the characteristics of the symptoms of an ailment suffered by the defendant to those symptoms exhibited by a person who is actually 'under the influence'..." *Id.* at 227. The defense was that at the time of the videotaping the defendant was in the manic stage of manic depression, not intoxicated.

As Lawrence Taylor observes in *Drunk Driving Defense* (1991 3rd Ed.), "It is helpful to the successful defense of a drunk driving case for counsel to obtain independent analysis of the client's blood-alcohol level. This can be done through obtaining a blood, urine, or breath sample within an hour or two of the client's arrest or by gaining access to the sample taken by the police." *Id.* at 209.

The scientific methods of urinalysis, breath and blood testing are all subject to operator and machine error. "The results of all-too-fallible blood alcohol tests are today accorded far more stature than they deserve. This is a reality that defense counsel must learn to deal with. He must constantly struggle to desanctify the testing procedure." *Id.* at 544.

Suppressing Confession

An inculpatory statement obtained from a defendant involuntarily is not admissible. *Hager v. Commonwealth*, 189 S.W.2d 867, 869 (Ky. 1945). Under RCr 9.78 a defendant is entitled to an evidentiary hearing on a motion to suppress an incriminating statement. When there is an issue as to whether the defendant was so under the influence of alcohol or a drug that his confession or his waiver of rights was not voluntarily given, criminal defendants often need an expert to evaluate the defendant and

render an opinion on the affects of the drug or alcohol on of the defendant's voluntariness.

In the murder case ***People v. Mencher***, 248 N.Y.S.2d 805 (N.Y. Sup.Ct. 1964) the defendant was entitled to money for a physician who is an expert on narcotics where the defense moved to suppress the confession since it was obtained a few hours after the defendant had been administered a narcotic drug.

The Defense of Being Under the Influence of Drugs or Alcohol

Intoxication is a complete defense to any crime if it negates an element of that crime. KRS 501.080; *Jewell v. Commonwealth*, 549 S.W.2d 807 (Ky. 1977).

Lawyers need expert help in this area since it is difficult even for doctors to know about all the effects of drugs on human behavior. "[T]he 300 or so diverse psychoactive drugs differ in many important ways. For example, only a few produce physiological tolerance and clinically relevant levels of withdrawl symptoms when someone stops using the substance. Some drugs markedly increase the chances that a person will have temporary phychoses or depressions; other drugs do not. Some are likely to be lethal in overdose; others appear to be relatively safe at high levels. Clinicians, therefore, are presented with a daunting challenge if they attempt to memorize all the attributes for each of the hundreds of psychoactive substances." Marc A. Schuckit, M.D., "Alcohol-Related Disorders" in *The Comprehensive Textbook of Psychiatry* (1995 6th Ed.) at 778.

How the drug affects a particular person's behavior is dependent on a number of factors. "The behavioral and physiological changes observed with any substance differ with the dose, the patient's prior history of exposure to the drug, and clinical conditions, including physiological disorders and the patient's state of fatigue. With a drug like alcohol, the effects also change over time after intake, with more pronounced symptoms observed while the blood alcohol levels are rising than when the blood alcohol levels are falling, a phenomenon called the Mallenby effect." *Id.*

Intoxication is relevant to the state of mind of the defendant. As a matter of 14th amendment due process, an indigent defendant is entitled to an expert "to examine [him] and assist him in the evaluation, preparation, and presentation of his intoxication defense," where he was charged with first degree robbery and had a serious substance abuse problem, and shortly after arrest went through alcoholic withdrawal syndrome and the more serious alcoholic withdrawal delirium. ***State v. Coker***, 412 N.W.2d 589, 593 (Iowa 1987).

"Although trial court should prevent random fishing expeditions undertaken in *search of* rather than in *preparation of* a defense..., it should not withhold appointment of an expert when the facts asserted by counsel reasonably suggest further exploration *may* prove beneficial to defendant in the development of his or her defense." *Id.* at 592. An expert is required if it "may lead to development of a plausible defense...." *Id.*

In ***Washington v. State***, 836 P.2d 673 (Okl. Cr. 1992) John Washington was convicted of first degree murder and first degree rape and sentenced to death and 500 years. The defense requested funds to hire a psychiatrist to assess the defendant's mental condition. The trial court refused but the appellate court saw it differently, holding that the defense was entitled to a psychiatric expert as a matter of 14th amendment due process in order to have both his insanity and the intent element of malice aforethought evaluated. *Id.* at 677.

Part of the justification for the expert included the defense attorney's suspicion that Washington "may have been on drugs, namely PCP, when the crime was committed." *Id.* at 675.

The Mitigation of Being Under the Influence of Drugs or Alcohol

Intoxication which does not rise to the level of a defense is nevertheless statutory mitigation in capital sentencing proceedings. KRS 532.025 (7).

In ***Bright v. State***, 455 S.E.2d 37 (Ga. 1995) Kenneth Bright was convicted of murdering his two grandparents and possessing a controlled substance. He was sentenced to death and 15 years.

The Court held it was error to refuse "to appoint a psychiatrist and toxicologist or to grant Bright funds to hire one of his own choosing."

Id. at 51. The defense was entitled to these two experts to develop the mitigation of:

- diminished capacity;
- impairment due to drug and alcohol abuse;
- poor impulse control;
- depression;
- serious drug dependency; and
- ingestion of drugs and alcohol on the night of the crimes.

"A toxicologist could have scientifically evaluated the effects of a history of cocaine abuse, as well as the severe abuse of drugs and alcohol on the night of the murders, on Bright's mental condition. Similarly, a psychiatrist could have evaluated, in terms beyond the ability of the average juror, Bright's ability to control and fully appreciate his actions in the context of the events that arose on the night of the murders, given his severe intoxication, his history of substance abuse, his troubled youth, and his emotional instability." *Id.* at 50-51.

In *Washington*, *supra*, the Court further noted that the defendant's mental condition was relevant not only to a guilt phase defense but also to punishment in the penalty phase.

Conclusion: Standards Require Experts & Money is Available for Experts

Standard. National standards dictate hiring an expert in 3 situations. Under **Guideline 4.1(7)** of the National Legal Aid and Defender ***Performance Guidelines for Criminal Defense Representation*** (1995), benign neglect is not the national benchmark, rather "Counsel should secure the assistance of experts where it is necessary or appropriate to: (a) the preparation of the defense; (b) adequate understanding of the prosecution's case; (c) rebut the prosection's case."

Funding. In the current fiscal year there is $506,657.75 available statewide under KRS 31.185 for indigent expert assistance. This includes $378,096 from the current fiscal year and $128,561.75 which was carried over from last fiscal year pursuant to KRS 31.185(2). It is up to defense attorneys to convert our benign neglect into proactive litigation skills that will insure access to these funds through court orders for our accused clients when effective representation requires expert services.

Table of Authorities for Funds for Drug & Alcohol Experts

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We take judicial notice of the frightening rise of illict drug use...in this country which is rapidly approaching epidemic proportions. However, we cannot allow this fact to result in a lessening of the state's requirements of proving each element of the crime beyond a reasonable doubt, for this requirement has long been a metaphysical cornerstone of our criminal law. *Stettvet v. State*, 280 N.E.2d 806, 809 (Ind. 1972).

Inequities in Defending and Obtaining Treatment for Juveniles in Drug Cases

A. Children Have No Right to Bail

Unlike similarly situated adults standing trial in drug cases "[t]he law relating to bail shall not be applicable to children detained in accordance with this chapter." *See* KRS 610.190 (1). Apparently, the reasoning behind the law is that the purposes for holding a child in custody are "limited" (See KRS 610.200 and 210); that if the child is accused of a status or public offense or of being in contempt of court, the child may be detained...for a period of time "not to exceed twenty-four (24) hours, exclusive of weekends and holidays (*See* KRS 610.265 (1)); and, within twenty-four (24) hours of the "start" of the period of detention...a hearing shall be held by the judge...of the court for the purpose of determining whether the child shall be further detained. (*See* KRS 610.265(2)(a).

Moreover, the express "intent" of the Juvenile Code most pertinent to the topic addressed here is:

> Any child brought before the court under KRS Chapter 600 to 645 shall have a right to treatment reasonably calculated to bring about an improvement of his condition. KRS 600.010(d)

What is not readily apparent from the law, however, is the fact that once a "detention hearing" is held and the court orders "further detention" of the child, the accused child may endure "pre-trial detention" for several months prior to trial in a secure detention facility across the state, without benefit of support network, school or treatment of any kind.

B. Lengthy Pre-Trial Detention Wears the Child Down

Lengthy pre-trial detention of a juvenile without any support system, school or treatment of any kind creates the perfect condition for wearing the child down. This gives the Commonwealth leverage to effectively coerce the child to turn state's evidence against co-defendants, especially adult co-defendants even where no "state's evidence" previously existed or would not have existed without testimony of the child. The problem occurs most frequently in drug round-ups and sweeps where children, in such cases, are indefinitely detained prior to trial without any hope of help or release.

The fact that juveniles may be transported to various detention centers through-out the state (for administrative purposes, of course), and often without notice to defense counsel, further compounds the problem. This clandestine activity provides opportunities for communications between the accused child and agents of the Commonwealth to occur. Further, if the juvenile is experiencing withdrawal symptoms from drug usage or fears indefinite detention, the child may make desperate attempts to confess or to accommodate the Commonwealth without first having the opportunity to review discovery materials (*e.g.*, drug buy tapes) in their case.

C. CHR: The Kiss of Death

Even if the accused juvenile does not experience lengthy pre-trial detention, the child may nonetheless be "committed" or "committed with order for placement" to the Cabinet for Human Resources as a disposition on a charge other than the drug related charge. Prosecutors often refer to commitment to CHR as the "kiss of death" because commitment indicates "last chance" for the juvenile in the juvenile court system. For defense counsel, however, commitment to CHR is the "kiss of death" for other reasons. CHR is a state agency. Any statements the child may make concerning the case can be obtained by the court and the Commonwealth. Moreover, committed juveniles have a tendency to "disappear" in the CHR vacuum for a lengthy period of time and get tied up in bureaucratic red tape.

On the other hand, CHR may be the only means by which substantial drug treatment for the juvenile client can be obtained. Without good medical insurance the juvenile client may have no chance of receiving needed drug treat-

ment. On the other hand, if the child is facing "certification" (to stand trial as adult) on the drug charge, the child will automatically register low on the CHR priority list for treatment/ placement.

D. The Double Void: Juveniles Who Turn 18 Prior to Trial

The "double void" phenomenon occurs when the accused juvenile is 17 years of age at date of commission of alleged felony offense, but is 18 years of age or older when brought before the court. Under these facts, KRS 635.020(7) mandates that the court "shall", upon motion of the county attorney....proceed against the child as a youthful offender under KRS 640.010. Such facts are commonplace in drug-related cases involving juveniles.

This provision makes it possible for law enforcement officials to play a large part in determining whether or not the child will be proceeded against as a youthful offender. Law enforcement may elect to wait until the child becomes 18 years of age before filing charges that allegedly occurred when the child was 17 years of age. Again, these facts occur most often in drug round-ups and sweeps where law enforcement officials may wait several months and even a year before charging the juvenile in hopes of using the time to gather more evidence against uncharged adult "co-defendants".

But for the fact that the juvenile is charged several months subsequent to date of alleged commission of drug offense, the court would not be mandatorily required to proceed against the juvenile as a youthful offender under the Juvenile Code, and the juvenile would not be robbed of opportunity to receive treatment reasonably calculated to bring about an improvement of his condition.

Even if the court determines that the child shall not be certified to stand trial as an adult (*i.e.*, motion charging arbitrary and capricious use of state power by law enforcement officials is granted), and the court does not choose a disposition that requires detention of the juvenile for up to 30 days (primarily because the juvenile code forbids detention of adults and children together), the chances that the juvenile will receive treatment, to which the child is supposedly entitled under the Juvenile Code, are slim and none for the same reasons: the child is 18 years of age or older.

In essence, the "double void" under these facts consists of foreclosure of treatment under the Juvenile Code and constitutional protections that would otherwise be afforded to adults. By the mere fortuity that the child has turned 18 years of age at the time charges are brought but subsequent to time of alleged of offense, such child slips through the cracks of the law.

E. The Treatment Maze: What Treatment is Available?

According to Rebecca McQuage, Regional Prevention Center of Western Kentucky, Paducah, Kentucky, some of the same treatment centers that provide in-patient residential treatment to adults will also provide such treatment to adolescents who have either medicaid cards or other insurance coverage if and only if substance abuse is *not* the "primary diagnosis" the child has and the "primary diagnosis" is a mental illness. In other words, in order for the child to get substantial substance abuse treatment, the child must have two labels rather than one, and at least one of the labels must be a mental illness.

McQuage makes three suggestions:

1. That defense attorneys refrain from making and object to the court making any determination of what "level" of treatment a child needs.

2. That defense counsel request that the court order the child to receive "out-patient services assessment" at local Kentucky Regional Mental Health Clinic, and that if the child is in a secure detention facility, order transport of the child for such assessment. McQuage says that the assessment is important for three reasons. First, the assessor uses a standardized assessment tool to make a determination of what "level" of treatment the child needs. Second, the therapist is in a position to screen the child for mental illness as well, which may enable the child to receive "inpatient residential substance abuse treatment". Third, the assessor has a duty to help the client get the treatment he or she needs.

3. That defense attorneys ask the court to encourage Court Designated Workers and social workers to receive training from "Prevention Resource Institute" on "Youth Diversion Program": an 8-10 hour program that addresses drug prevention for youth based on a "big-psycho-social" model approach. Cost for such a program however, would have to be paid by the child at the rate of approximately $50.00 per child because no money for the program is available through the Kentucky Division of Substance Abuse at this time.

As with any "court ordered" activity, there remains the concern of "confidentiality." Although statements given during "therapy" would be privileged information, statements given for purpose of assessment for therapy would not.

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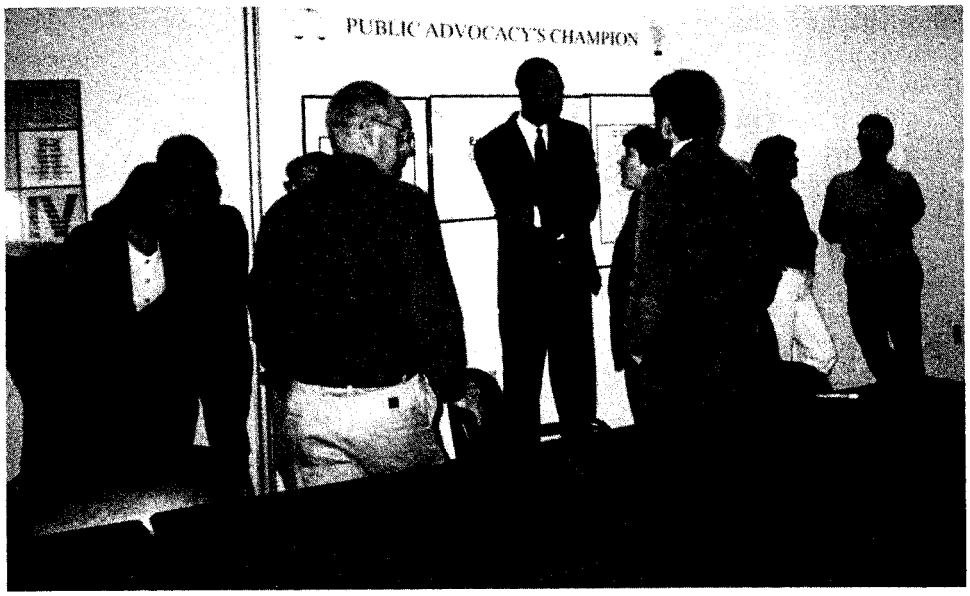
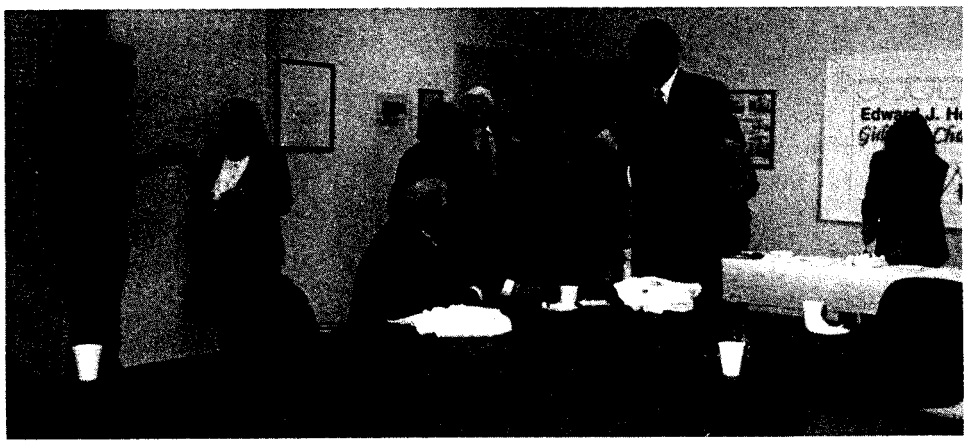
The Department of Public Advocacy Thanks Public Protection & Regulation Secretary Edward Holmes for His 4 Years of Leadership on Behalf of Kentucky's Poor





Ask Corrections

QUESTION 1: My client recently received a five year sentence for trafficking 2nd degree. He has a history of drug use. Does the Parole Board require that he attend a drug treatment program before meeting the Parole Board?

ANSWER 1: No. There is no requirement that a person must receive drug treatment before becoming eligible for parole consideration. However, the Board may recommend that he receive treatment prior to being paroled.

QUESTION 2: My client was convicted of possession of contraband 2nd degree due to drugs being found in his possession while incarcerated in the state penal system. He received a ninety (90) day misdemeanor sentence. The trial court ordered that this sentence run consecutively to the felony sentence he was serving. Is there a statutory provision which allows the court to run a misdemeanor sentence consecutively to his felony sentence?

ANSWER 2: Yes. Under KRS 532.110 (4) and (5), if a person is convicted of an offense that is committed while he is imprisoned in a penal institution during an escape from imprisonment, or while he awaits imprisonment, the sentence imposed for that offense may be added to his sentence. The trial court may order that sentence for a crime committed in the institution be served in that institution.

QUESTION 3: My client was placed in a drug treatment program while on parole. This drug treatment program was an alternative to parole violation charges being pursued. If he completes the program and his parole is later revoked will he receive credit against his sentence for that time?

ANSWER 3: No. KRS 439.344 provides that the period of time spent on parole shall not count toward his sentence. The Department of Corrections does credit individuals with the period of time spent in jail on parole violation charges, known as P.V. time credit. His placement in the drug treatment program was a condition of his parole and was not time spent in jail on violation charges. Therefore, he would not receive that time as credit against his sentence.

QUESTION 4: My client was convicted of possession of a controlled substance 2nd degree, a Class D Felony. At the time of the offense, he had in his possession a firearm. What, if any, additional punishment may he receive as a result of the firearm possession?

ANSWER 4: Under KRS 218A.992 the penalty imposed may be raised to the next highest felony class. Therefore, he may be sentenced under the sentencing guidelines for a Class C Felony. However, this would be determined by the sentencing court.

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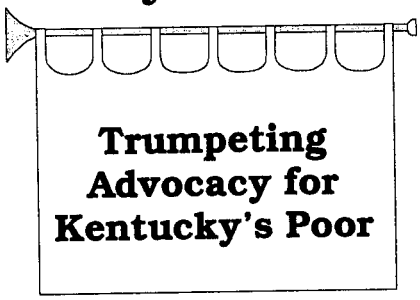
From *What is a Public Defender?* written by the classes of Mrs. Ponder, Mrs. Graves, and Mrs. Coffey, Brodhead School, 1995

Public Advocacy Seeks Nominations



KENTUCKY DEPARTMENT OF PUBLIC ADVOCACY'S *GIDEON* AWARD: TRUMPETING COUNSEL FOR KENTUCKY'S POOR

In celebration of the 30th Anniversary of the United States Supreme Court's landmark decision in ***Gideon v. Wainwright***, 372 U.S. 335 (1963), the Kentucky Department of Public Advocacy established the *Gideon* Award in 1993. The prestigious award is presented at the Annual DPA Public Defender Conference to the person who has demonstrated extraordinary commitment to equal justice and who has courageously advanced the *right to counsel* for the poor in Kentucky.

Written nominations should be sent to the Public Advocate by May 1, 1996 indicating:

1) Name of the person nominated;
2) Explanation of how the person has advanced the right to counsel for Kentucky's poor as guaranteed by Section 11 of the Kentucky Constitution and the 6th Amendment of the United States Constitution; and,
3) A resume of the person or other background information.

1993 *Gideon* Award Recipient	**J. Vincent Aprile, II**, General Counsel of DPA
1994 *Gideon* Award Recipients	**Daniel T. Goyette** and the **Jefferson District Public Defender's Office**
1995 *Gideon* Award Recipient	**Larry H. Marshall**, Assistant Public Advocate

Rosa Parks Award for Advocacy for the Poor

Established in 1995, the *Rosa Parks* Award is presented at the Annual DPA Public Defender Conference and the Annual Professional Support Staff Training Conference to the non-attorney who has galvanized other people into action through their dedication, service, sacrifice and commitment to the poor. After Rosa Parks was convicted of violating the Alabama bus segregation law, Martin Luther King said, "I want it to be known that we're going to work with grim and bold determination to gain justice... And we are not wrong.... If we are wrong justice is a lie. And we are determined...to work and fight until justice runs down like water and righteousness like a mighty stream."

Written nominations should be sent to the Public Advocate by May 1, 1996 indicating:

1) Name of the person nominated;
2) Explanation of how the person has galvanized people to advocate for Kentucky's poor; and,
3) A resume of the person or other background information.

1995 *Rosa Parks* Award Recipient — **Cris Brown**, Paralegal, DPA's Capital Trial Unit

Drug Cases and the Fourth Amendment

Very little of the Fourth Amendment of the United States Constitution and Section Ten of the Kentucky Constitution is irrelevant to the defending of drug cases. Often, suppression of the drugs is the only possible avenue of relief for many of our clients. There are, however, a number of cases which are particularly applicable to the defense of drug cases. With apologies to David Letterman and in no particular order these cases are as follows:

1. ***United States v. Leon***, 468 U.S. 897 (1984). In this case, the United States Supreme Court established the good faith exception to the exclusionary rule. The Kentucky Supreme Court adopted this in *Crayton v. Commonwealth*, Ky., 846 S.W.2d 684 (1993). Defenders representing clients who have been charged with drug offenses seized following the execution of a warrant must understand the good faith exception to the exclusionary rule;

2. ***Oliver v. United States***, 466 U.S.170 (1984). Here, the United States Supreme Court held that there is no reasonable expectation of privacy in the open fields area outside of the curtilage of the home. This case in particular has obvious implications for the numerous cases of cultivating marijuana which arise in Kentucky. A companion case is *United States v. Dunn*, 480 U.S. 294 (1987) wherein the Court held that a barn located sixty yards from the house was not part of the curtilage and thus was part of the open fields analysis;

3.***California v. Greenwood***, 486 U.S. 35 (1988). The United States Supreme Court held that there was no reasonable expectation to privacy in a person's garbage which had been placed on the curb. I suspect many of us have had cases in which probable cause to search a home was found following the search of garbage looking for drug paraphernalia and other evidence of drug use and drug trafficking;

4.***California v. Hodari D.***, 499 U.S. 621 (1991). *Hodari D.* is significant in drug cases because the Court held that no seizure has occurred unless physical force has been used against the person. This case becomes important where our clients have been arrested without a warrant and evidence has been abandoned during flight from the police. *Hodari D.* tells us that unless physical force has been used against our clients that there may be no seizure and thus no Fourth Amendment implications;

5. A series of cases establishing the right of the police to conduct inventories have serious implications in drug cases. ***South Dakota v. Opperman***, 428 U.S. 364 (1976) held that a warrantless inventory of the glove compartment of an abandoned vehicle was reasonable. Thereafter, ***Illinois v. Lafayette***, 462 U.S. 640 (1983) held that a warrantless search of a shoulder bag at the jail of a defendant arrested on disturbing the peace was a reasonable search. The third in the trilogy is ***Colorado v. Bertine***, 479 U.S. 367 (1987) where the Court approved of an inventory search of a backpack seized from the van of a drunk driver;

6. The burgeoning special needs search has drug offense overtones as well. In ***New Jersey v. TLO***, 469 U.S. 325 (1985), the Court approved of the warrantless searches of school children without a warrant and without probable cause. Thereafter in ***Vernonia School District 47J v. Acton***, 115 S.Ct. 2386, 132 L.Ed.2d 564 (1995) the Court approved of random drug testing of student athletes. In ***Hudson v. Palmer***, 468 U.S. 517 (1984) the Court stated that there was no reasonable expectation of privacy in our nation's prisons and jails. In *Griffin v. Wisconsin*, 483 U.S. 868 (1987) the home of a probationer was searched without a warrant and the United States Supreme Court approved this search as reasonable;

7. Probably the most important case with drug defense implications is ***Terry v. Ohio***, 392 U.S. 1 (1968). There, the court approved of the stop and frisk without a warrant and without probable cause. The Court established the test as whether there is an articulable suspicion that a crime is occurring or has occurred. Thereafter, the Court in ***Michigan v. Long***, 463 U.S. 1032 (1983) approved of the *Terry* search of a vehicle. In ***United States v. Sokolow***, 490 U.S. 1 (1989) the Court approved not only of a *Terry* search in an airport but also implicitly

approved of the use of the drug courier profile in *Terry* cases. Finally, in ***Minnesota v. Dickerson***, 113 S.Ct. 2130, 124 L.Ed.2d 334 (1993) the Court approved of the plain touch exception during a *Terry* stop. This was approved by the Kentucky Supreme Court in ***Commonwealth v. Crowder***, 884 S.W.2d 649 (Ky. 1994);

8. In ***Wilson v. Arkansas***, 115 S.Ct. 1914, 131 L.Ed.2d 976 (1995), the Court announced that during the execution of a warrant, the knock and announce requirement is mandated as a matter of Fourth Amendment law;

9. ***United States v. Ferguson***, 8 F.3d 385 (6th Cir. 1993) (*en banc*). Here, the Sixth Circuit approved the "could test" over the "should test" in gauging the pretextual nature of that search. Thus, in the area covered by the Sixth Circuit the courts will be looking at whether a person could be pulled over by a reasonable police officer rather than looking past that into the obvious pretextual nature of the search;

10. ***Paul v. Commonwealth***, 765 S.W.2d 24 (Ky. 1989). Here, the Court held that a passenger in a car where marijuana was found may not be arrested and thereafter searched, thereby giving special protection to the passenger.

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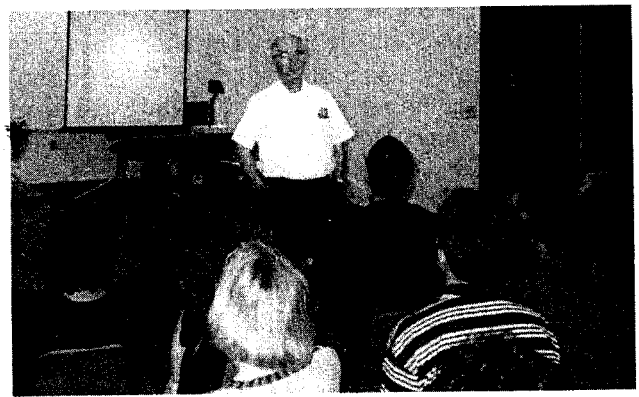
Coaches at the 1995 DPA Trial Practice Persuasion Institute


Herschella Conyers


Madonna Magee


Frank Riley


Lynda Campbell


Dr. Morris Taylor


(l to r) Chris Polk, Leo Smith, Pete Schuler, Rob Eggert

"Drug Detecting" Dogs

Reprinted by permission of Harry R. Reinhart, Columbus, Ohio.

Our dogs will love and admire the meanest of us, and feed our colossal vanity with their uncritical homage.

- Agnes Replier,
"The Idolatrous Dog"
Under Dispute (1924)

A dog will never forget the crumb thou gavest him, though thou mayest afterwards throw a hundred stones at his head.

- Sa Di, *Gulistan* (1258),
8.99, *Fr. James Ross*

The best thing about animals is that they don't talk much.

- Thornton Wilder,
The Skin of Our Teeth (1942), I.

Government Going To The Dogs

Law enforcement has become enamored with the use of dogs for detecting the presence of drugs. The trend has received considerable impetus from a series of decisions holding that a dog sniff is not a search. See, *e.g.*, *United States v. Place*, 462 U.S. 696, 707, 103 S.Ct. 2637, 77 L.Ed. 2d 110, 121 (1983) (dog sniff of airline passenger's luggage did not constitute a search within the meaning of the Fourth Amendment); *U.S. v. Beck*, 736 F.2d 1289 (9th Cir. 1984) (en banc) (dog sniff of luggage is not a search and requires neither reasonable suspicion nor probable cause). A significant question remains, however, about what weight or probative value can be assigned to the so called "dog alert." As noted above, dogs "don't talk much," and recent evidence suggests that there may be many reasons for the "alert" -- if indeed there was one -- other than the presence of controlled substances. This article will explore some of these issues.

Keep *Place* in Its Place

United States v. Place, *supra*, involved the investigation of criminal activity in a very public forum: an airport. It remains to be seen whether the *Place* rationale will be extended to other less public places. Thus far, the courts which have been confronted with this issue have generally held that the use of sniffer dogs near a private residence do constitute searches within the meaning of the Fourth Amendment. See *United States v. Thomas*, 757 F.2d 1359, 1366-67 (2nd Cir. 1985). At any rate, this issue should always be challenged, for if the criminal defense bar is not vigilant, the wolf will soon be at the door.

The "Reasonable Dog" Test for Probable Cause

Under *Place*, the use of a sniffer dog in and of itself does not constitute a search. However, entering an individual's auto or home because the dog has allegedly "alerted to the presence

of drugs" most definitely is a search. Far more serious a threat to our system of criminal justice, however, is the risk that the mere alert or positive reaction of the dog will, in and of itself, become routinely accepted as sufficient to establish probable cause justifying the arrest and search of persons in public places. See "Challenges To Dog Sniff Searches," Vol. 2, No. 18 *Drug Law Report* (November-December, 1990) at 1. At least four (4) federal circuits have actually held that a positive alert by a sniffer dog without prior particularized suspicion of any sort is sufficient to establish probable cause supporting a warrantless search. See *United States v. Dovali-Avila*, 895 F.2d 206, 207 (5th Cir. 1990); accord *United States v. Gonzales-Basulto*, 898 F.2d 1011, 1013 (5th Cir. 1990); *United States v. Knox*, 839 F.2d 285, 294 n.4 (6th Cir.1988); *United States, v. Race*, 529 F.2d 12, 14 (1st Cir. 1976); *United States v. Fernandez*, 722 F.2d 495, 498 n.2 (9th Cir. 1985). Each of the foregoing cases is based on the erroneous belief that dogs are trained to alert only when they detect contraband. See *Dovali Avila*, *supra*, 895 F.2d at 207; See also *Race*, *supra*, 529 F.2d at 14 (probable cause established upon government's "strong foundation of canine reliability and handler expertise" but also observing that a "dog's excited behavior could [not], by itself, be adequate proof that a controlled substance is present").

The courts which have held that probable cause is established exclusively upon an alert by a sniffer dog have grossly overestimated the probative value of this single item of circumstantial evidence. As Mr. Wilder noted above, animals "don't talk much." It is simply not possible to know with any degree of certainty why a dog acts the way it acts in any given situation. It falls to the defense bar to educate the courts about drug detecting dogs and thereby put this evidence into its proper perspective.

The Nose Knows

The essential factual assumption which has been accepted uncritically by the First, Fifth, Sixth and Ninth Circuits is that dogs alert only when they detect contraband. The truth is that dogs "alert" for many reasons which may or may not indicate the presence of drugs. Experts have long recognized that a sniffer dog is trained to alert not to drugs, but rather to a scent which the dog has been trained to associated with the toy used during the training process. The dog's goal is the reward received at the end of the game.

In the case of cocaine, for example, dogs are often taught to associate the toy with the scent of the chemical washes almost universally used by clandestine drug manufacturing laboratories. Other trainers teach the dogs to detect methylbenzoate, a non-controlled vaporous substance formed as a result of the partial decomposition of cocaine.

These associated odors to which the dogs respond during the game occur in widely distributed products as varied as the glue on tape and packaging of foodstuffs. See Affidavit of Dr. James Woodford, Ph.D., filed as an exhibit to the Motion to Suppress in *U.S. v. Mejia-Quiroz*, U.S.D.C., S.D. Ohio Case No. CR-2-93-077(2).

Several courts have also recognized that sniffer dogs are incapable of distinguishing between an odor emanating from drugs and the residual odor left by drugs no longer present. See, *e.g.*, *United States v. Johnson*, 660 F.2d 21, 22-23 (2nd Cir. 1981) ("A dog is incapable of distinguishing between the actual presence of drugs in a container and the residual odor when the controlled substances are no longer there"); see also *Horton v. Goose Creek Ind School Dist.*, 693 F.2d 524 (5th Cir. 1982); *United States v. Trayer*, 898 F.2d 805,808 (D.C. Cir. 1990). Dogs may "alert" for other reasons as well. A dog may react to a residual scent as long as four (4) to six (6) weeks later. See *Jennings v. Joshua Ind. School Dist.*, 877 F.2d 313, 317 (5th Cir. 1989), *cert. denied*, 110 S.Ct. 3212 (1990).

Unprofessional handling may also cause a false positive alert. *United States v. Trayer*, 898 F.2d 805, 809 (D.C. Cir. 1990). A suspect's recent exposure to another dog in heat, a cat or other animals also result in a sniffer dog becoming excited and reacting in the same manner in which it was trained to respond when "alerting" to the presence of drugs. See *Doe v. Renfrow*, 451 U.S. 1022 (1981) (Brennan, J., dissenting from the denial of certiorari), *Jones v. Latexo Inc. School Dist.*, 499 F.Supp. 223, 228 n.2 (E.D. Tex. 1980).

Cases such as these reveal the fallacy of the Supreme Court's uncritical assumption that a dog sniff "discloses only the presence or ab-

sence of narcotics." *Place*, *supra*, 462 U.S. at 707; See also *United States v. Jacobsen*, 466 U.S. 109 (1984). Indeed, as the United States Court of Appeals for the Eleventh Circuit has observed: The Supreme Court has assumed that dog sniff tests are reliable. The result of the test in this case should perhaps give us pause before making that assumption. *United States v. Brown*, 731 F.2d 1491, 1492 n.1, *modified*, 743 F.2d 1505, *rehearing denied*, 749 F.2d 733 (11th Cir. 1984).

Lawyers Guns and Contaminated Money

Perhaps the overriding problem with sniffer dogs is their extremely sensitive olfactory sense and the ubiquity of contaminated items in contemporary society. The D.E.A. has been aware of this problem since at least February, 1989. Their own study found that at least one-third (1/3) of all the paper currency in circulation is contaminated with trace amounts of cocaine. Further, the degree of contamination (2.4 to 12.3 nanograms per bill) is hundreds of times more than enough to be detected by a dog with even average olfactory abilities. In all likelihood the degree of contamination is far greater than suggested by the D.E.A. study. Indeed, Dr. Poupko, a forensic chemist, testified in *U.S.A. v. $124,570 U.S. Currency*, U.S.D.C., C.D. Cal. No. CV-87-578 RSWL. In his opinion, ninety percent (90%) of currency in general circulation is contaminated, and the contamination was caused by the government itself:

The results from the samples received from the Chicago Federal Reserve Bank, confirms the presence of traces of cocaine on general circulation U.S. currency. Moreover, the results indicate that the Federal Reserve Bank itself may be contaminating the currency through the normal procedures employed by the bank. The belts must be initially contaminated by the currency, then inturn [sic] the belts will contaminate "clean" currency. These results indicate the termination of the project as all aspects show that the forensic usefulness of trace analysis is at best limited.

See Exhibits Nos. 5 & 6 attached to Suppression Motion filed in *U.S.A. v. Mejia-Quiroz*, *supra*. It is hardly surprising, then, that dogs regularly alert when no drugs are present. In *United States v. Brown*, *supra*, the dog alerted to an airline passenger's luggage. Two guns were found but no drugs were present. It is perfectly reasonable to conclude that the dog was alerting to a contaminated object. And in *U.S.A. v. One Gates Lear Jet*, 861 F.2d 868 (5th Cir. 1988), the government sought forfeiture of a LearJet on the basis of a contaminated carpet in the airplane. The government's own chemist testified, "that the trace was so small that its presence could only be detected by complicated scientific procedures. The chemist conceded that the quantity could have been brought on board the aircraft on the shoe of a passenger or crew member...." *Id.* at 872. Nevertheless, it was a sufficient quantity to cause a sniffer dog to alert. *Id.* at 869.

Several cases report scientific studies finding a huge percentage of all currency in general circulation contaminated with true amounts of cocaine. See *U.S. v. $87,375 in U.S Currency*, 727 F.Supp. 155, 160 (D.N.J. 1989) (100% of randomly collected bills contaminated); *U.S. v. $80,760 in U.S. Currency*, 781 F.2d 462,475 at n.32 (N.D. Tex. 1991) (80% contaminated); *U.S. v. $639,558 in U.S. Currency*, 955 F.2d 712 (D.C. Cir. 1992) (90% contaminated). This creates a real problem if one seeks to use a sniffer dog alert to establish probable cause to believe drugs are present. A dog with even a mediocre sense of smell can detect a femtogram (fg) quantity of cocaine odor. Assuming that the average bill in general circulation contains 22.6 micrograms (mcg) per bill, then a single bill contains more than 200,000 times the amount of odor needed to cause Fido to alert. One contaminated bill in a bundle of one thousand bills would provide more than enough scent for an alert. See Woodford affidavit, *supra*. A dog alert to currency or any item that is or could have come in contact with contaminated currency is, therefore, of extremely limited value in establishing probable cause to believe that drugs are present.

The Scent of a Cop

In *United States v. Trayer*, 898 F.2d 805, 809 (D.C. Cir. 1990) the court noted the testimony of a retired Baltimore Police Dog trainer that "it is possible for a handler through voice or physical cues to compromise a dog's objectivity." While it is certainly true that a handler can intentionally cue a dog to alert, this can also happen unintentionally as well. Dogs and people communicate by smell as well as by voice and sight. Olfactory cues are probably more important to a dog than visual cues and

are not subject to conscious control by the handler. The best trained drug sniffing dogs are the ones that can also read body-chemical language and draw inferences from bodily odors. Changes in the intensity of odors emanating from their handlers have meanings as strong as vocal commands to the dog. Body odors and changes in body odor intensities emanate for humans as the chemical by- product of fear, excitement and anticipation. Chemical signaling between handlers and their dogs creates a wide margin for erroneous inferences which can be triggered at the chemical level. Woodford Affidavit, *supra*, at page 10.

Picture the state trooper approaching a U-Haul which has been stopped while traveling in tandem with a rented car containing two Hispanic males. This trooper can sense a big bust -- a career building arrest. His excitement in communicated to the "canine unit" (otherwise known as the dog). Fido gets excited and jumps around by the car. Presto! Probable cause created by the scent of a cop!

Conclusion

The defense bar needs to litigate these issues in order to educate the bench. There are several creative approaches to this. For example, anything done by the dog out of court is arguably hearsay and inadmissible at trial to prove the truth of the matter asserted. Use of a dog alert in an affidavit in support of a warrant might give rise to a *Franks v. Delaware*, 438 U.S. 154, 165 (1978) suppression issue if material facts relating to the dog's "credibility" are omitted from the affidavit. And in-court demonstrations of the dog's inability to distinguish between residual odor, trace contamination and the presence of narcotics ought to be considered. Perhaps you should request that the judge provide the paper currency out of his own pocket to assist in the demonstration. (When the dog alerts you might raise the question of whether forfeiture would be appropriate under the circumstances.) These issues are winnable and worth litigating. We must not allow man's best friend to become the Fourth Amendment's worst enemy. Remember -- every dog will have his day -- in court!

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The real friend of his country is the person who believes in excellence, seeks for it, fights for it, defends it, and tries to produce it.

- Morley Callaghan

Use of Experts in Drug Cases

David Niehaus

In most cases under KRS Chapter 218A, the Commonwealth resorts to expert witnesses for two purposes. The Commonwealth needs a chemist to identify a substance as one on the prohibited list and occasionally it needs police officers to give their expert opinion about "the drug culture." The chemist from the State Police Lab does not present many problems although there is some question as to whether that chemist can be excluded under KRE 403 if the defense offers to stipulate the identity or weight of the substance. The police officers are more problematic because the Commonwealth, with the encouragement of incorrect opinions like *Kroth v. Commonwealth*, 737 S.W.2d 680 (Ky. 1987), causes police officers to opine on matters that are not proper subjects for expert testimony and which amount to opinions on the ultimate issue of the case in trafficking prosecutions.

As we will see further on in this article, some federal circuits are now taking the position that jurors are sufficiently sophisticated about drug trafficking and drug cases that it is not always necessary to have the police officer explain matters like whether or not drugs are packaged for sale. In any event, the failure of Kentucky to adopt an analogue to FRE 704 clearly indicates that no one should be admitted to testify as to the ultimate issue of a case. To determine whether expert testimony is needed in drug cases it is important first to see what the burden of proof in such cases is.

KRS Chapter 218A started out as Chapter 29 of the Final Draft of the Penal Code that eventually became Kentucky's criminal law in 1974. For a number of reasons, the drug chapter was taken out of the Penal Code and placed in the public health section of the Revised Statutes. However, because KRS Chapter 218A punishes some actions as crimes, the general portions of the Penal Code apply in all drug prosecutions. KRS 500.070(1) imposes the burden on the prosecution to prove every element of the case beyond reasonable doubt. In the most commonly charged offenses, trafficking and possession of controlled substances, KRS 218A.1412 -218A.1422, the Commonwealth is required to show that the person knowingly and unlawfully either possessed or trafficked in a controlled substance. Depending on the substance, the Commonwealth's burden is to prove that the substance is classified in a particular schedule or that it is a particular compound like LSD or marijuana. All in all, it is not a difficult task.

The Commonwealth calls a state police chemist in almost every case to identify the substance. The tests for identifying controlled substances have been around for years and, to my knowledge, the validity of the method of these tests is not subject to attack. It may well be that the results of the test are open to question because of the proficiency of the laboratory personnel, but this is a question that could be mounted only where the defendant obtains a contrary result on an independent test. The identification dialogue is simple. It should go something like this:

Q: Mr. Blank, please identify yourself and tell us about your training.

W: My name is Blank, I am employed as a forensic chemist by the Kentucky State Police Lab at _____. I received a bachelor's degree from _____ University. After receiving my degree, I was hired by the Kentucky State Police Laboratory and underwent a ___ year training period in forensic chemistry at the Central Lab in Frankfort. I was trained by an experienced forensic chemist. After completion of that program I was transferred to the _____ Regional Lab where I have been employed for ____ years.

At this point, some prosecutors will "tender" the witness as an expert. There is no need for this under KRE 702. The qualifications of the witness are solely a matter for the trial judge who determines qualification as a matter of law pursuant to KRE 104(a). Although the judge need not conduct a qualification hearing out of the presence of the jury KRE 104(c), the judge is always under a duty, imposed by KRE 103(c) to "prevent inadmissible evidence from being suggested to the jury by any means, such as making statements or offers of proof or asking questions in the hearing of the jury." By asking the judge to recognize the witness as an expert, the prosecutor, intentionally or unintentionally, is giving the jury the impression that this is a special witness to whom special attention should be paid.

The only special thing that the witness's qualification entitles him or her to do is to express an opinion. Unless this is made perfectly clear to the jury by means of a strong admonition, the prosecution is gaining an unfair advantage when the judge sustains the motion to have the witness accepted as an expert. To avoid the problem, make an in limine motion before trial. The jury does not need instruction on the fine points of evidence law and unless there is an objection to the qualification of the witness to give an opinion, there is no reason to bring it up. Expert witness status does not mean that the witness is extra believable. It only permits the witness to state an opinion, which can be done without running the risk of confusing the jury. This is a small point, but trials quite often are made up of many small points the cumulative effect of which is to prejudice the defense.

Little can be done to combat the chemist's testimony that the substance she tested was a controlled substance of one sort or the other. However, some prosecutors are not satisfied with meeting their burden of proof and proceed to ask the chemist questions which are none of the jury's business. Obviously, if the case requires proof that the substance seized by the government is a controlled substance listed on Schedule II, the prosecutor must ask the witness to say this. The witness can answer, "The substance was _____, classified on Schedule II as a nonnarcotic drug." If the case involves LSD, the witness can say that "The substance tested was LSD." There is absolutely no reason for the chemist to go into the weight (unless it is a possession with intent to sell trafficking case) and no reason to go into the underlying reasons for placing certain substances on particular schedules.

The schedules are matters of law. They were made up by the General Assembly [KRS 218A.040 *et. seq.*] and are not subject to debate, qualification, or disagreement by anyone present in the courtroom. The jury does not need to know why LSD is on such and such a schedule. Under the "bare bones" approach of jury instructions followed in Kentucky, *Whorton v. Commonwealth*, 570 S.W.2d 627 (Ky. 1978), the jury is not instructed on the operation of law. It is asked to find the essential elements of the crime. Any discussion about the perniciousness of a substance or its lack of legitimate purpose can only serve to prejudice the jury unfairly. It is important to keep in mind that in all felony prosecutions KRS 532.055(1) limits the first determination to whether the defendant is guilty or not. The jury does not need to know how awful a particular substance is until the closing argument of the sentencing phase of the trial. Again, this may be a small point, but small points add up during the course of a trial.

What if you offer to stipulate that the substance seized was cocaine or LSD? The answer is not clear. Recently, in *Chumbler v. Commonwealth*, 905 S.W.2d 488 (Ky. 1995), the Supreme Court restated the standard rule, that "a defendant is not entitled to stipulate away the parts of the case which he does not want the jury to see." This statement of the rule is misleading. Oftentimes, it is said that the Commonwealth has the right to prove its case and the defendant cannot undermine the Commonwealth's decision by offering to stipulate parts of the case. But the Commonwealth is not entitled to anymore consideration than any other litigant in the Court of Justice. All litigants are subject to the supervisory authority of the trial judge, who is the person vested by law with discretion to decide what the jury hears and what the jury does not hear.

KRE 611(a) gives the trial judge control over the presentation of evidence to make the presentation "effective for the ascertainment of the truth." KRE 403 grants the judge broad discretion to exclude relevant evidence if its probative value is substantially outweighed by any number of considerations, not the least of

which is that the evidence is unnecessary. The bottom line is that if the judge can exclude evidence for reasons of "undue delay" or cumulation of evidence, the judge has the authority to exclude witnesses because their calling will serve no useful purpose. One of the important balancing considerations under Rule 403 language was stated in the Advisory Committee note to the federal rule, that "the availability of other means of proof may also be an appropriate factor." Kentucky Rules of Evidence, Revised Commentary, p. J-22. Although the argument that I am proposing here has not had great success in the federal courts, *e.g.*, *U.S. v. Breittkreutz*, 8 F.3d 688, 690-692 (9th Cir., 1993), the federal cases deal with instances where the defendant is complaining on appeal that the judge should have excluded evidence or testimony, most often evidence of prior convictions. These cases do not say that a judge cannot exclude such evidence; only that the judge does not have to. Graham, one of the big names in federal evidence, states in his *Handbook of Federal Evidence* that

> In evaluating the incremental probative value of the offered evidence, the fact that the opponent has offered to stipulate or is not disputing the proposition for which the evidence is being offered should be considered. However, the fact that the proposition is not being disputed is not alone dispositive; the proponent of the evidence is entitled to have the court also consider the fair and legitimate weight introduction of the evidence would have upon the trier of fact. *Id.* at 185.

In some cases, exclusion of expert testimony would be devastating to the Commonwealth's case. In others, a formal agreement by the defense that the substance has been found to be cocaine and that the jury may so believe certainly is a worthy substitute to having the chemist get on the stand, particularly if the chemist's testimony would be limited in any event to identifying the substance as one placed on the schedules by the General Assembly. The defendant cannot force the Commonwealth to forego this witness but the defendant can convince the judge that the witness need not be heard and the judge's decision to exclude will be reviewed only for abuse of discretion. It is something that can be done with any expert witness and with any other evidence that the Commonwealth may wish to introduce. The analysis may be most useful in excluding police "expert" testimony about drugs and trafficking.

Although there are Supreme Court opinions that authorize introduction of expert testimony by police officers on a number of subjects, these pre-date the adoption of the Rules of Evidence and no one knows for sure whether the adoption of Article VII of the Rules of Evidence supersedes these opinions.

The starting point is the plain language of KRE 702. The first question to ask is whether scientific, technical or other specialized knowledge will assist the trier of fact either to understand the evidence or to determine a fact in issue. If so, the proponent may introduce a witness "qualified as an expert by knowledge, skill, experience, training or education" and that witness may testify concerning the information that will assist the trier of fact either by means of opinion or otherwise. *Renfro v. Commonwealth*, 893 S.W.2d 795 (Ky. 1995). The first question is the important one. If the jury does not need help either understanding the evidence or deciding the facts at issue, there is no basis for the introduction of expert testimony. This is the threshold question. If the Commonwealth cannot make this showing, the police officer must sit down and be quiet.

Usually there is little advantage in attacking the qualifications of most police officers to testify about the drug trade. The qualification of the witness is a question for the judge under KRE 104(a) and the basis for admission comes down to the statement found in KRE 602 which requires personal knowledge of the matter about which the witness will testify. And unless the opinion of the officers invades the exclusive fact finding province of the jury, there is no legitimate objection to the form of the testimony.

The question of whether the jury needs the help of police officers in drug cases, not surprisingly, depends on the type of case. In a simple possession case there is no reason to have police officers testify about anything except facts linking the controlled substance to the defendant. The drug trade, their prowess as investigators, the reasons that they suspected the defendant and all other matters of this type are irrelevant. The statute establishes

the elements of the case which are that the defendant knowingly possessed a controlled substance without license to do so. The matters just spoken of are irrelevant or are so marginally relevant that they must be excluded under KRE 403. Of course it is trafficking cases based on the theory of possession with intent to sell that the issue of police expert testimony under *Kroth* and other cases arises.

In most possession with intent to sell cases, the police officers at a minimum testify that they found either a certain amount of controlled substance along with paraphernalia like scales, razor blades and plastic bags or that they found certain amounts "packaged for sale." Neither *Kroth* nor *Sargent v. Commonwealth*, 813 S.W.2d 801, 802 (Ky. 1991), present convincing reasons to allow a police officer to give evidence on the ultimate fact in a possession with intent to sell case, *i.e.* whether the controlled substances were possessed for the purpose of sale. Sargent follows the general line of analysis that the "drug trade" is outside the experience of most jurors, but in the mid-1990's it is time to question this assumption. It is already being questioned in other cases.

The leading case on this subject is *United States v. Castillo*, 924 F.2d 1227 (2nd Cir., 1991). In that case the Second Circuit correctly pointed out that if testimony is directed to "lay matters which a jury is capable of understanding and deciding without the expert's help," that testimony should be excluded. The court also noted that even if the evidence might be admissible under Rule 702, it is still subject to exclusion under Rule 403. In *Castillo*, the Second Circuit acknowledged that it usually agreed that the operations of narcotics dealers are a proper subject for expert testimony. But the court also noted that it had "carefully circumscribed the use of such testimony to occasions where the subject matter of the testimony is beyond the ken of the average juror.' *Id.* at 1232. Relying on the Advisory Note to the federal rule, the court said that "there is no more certain test for determining when experts may be used than the common sense inquiry whether the untrained layman would be qualified to determine intelligently and to the best possible degree the particular issue without enlightenment from those having a specialized understanding of the subject involved in the dispute." *Id.* at 1232-1233. The court examined its own precedents and stated that under the rule, "expert testimony on drug-related matters is unnecessary and properly excludable where all the primary facts can be accurately and intelligently described to the jury, and if they, as [persons] of common understanding, are as capable of comprehending the primary facts and of drawing correct conclusions from them as are witnesses possessed of special or peculiar training, experience or observation in respect of the subject under investigation." *Id.* at 1232. The court concluded that "we are not convinced that New York jurors in today's climate, flush with daily news of the latest drug busts, need an expert to enlighten them as to such elementary issues as the function of a scale or index card in a drug deal." *Id.* at 1233. The same thing must be said for Kentucky jurors in 1995.

The most often asked question of police "experts" is whether the dope found in one gram plastic bindles was packaged for sale. The jury can conclude without expert help that if cocaine is bought in one gram bindles, it must also be sold in one gram bindles. The jury can conclude from the other evidence, such as the number of such bindles or the total weight of the drug, whether or not the defendant possessed the required intent to sell. By having the police officer, in full uniform, state that it was, the Commonwealth is permitted to "overpersuade" the jury. Under KRE 702 and 403 this is not permitted.

Kentucky did not adopt proposed KRE 704, which, like its model, FRE 704, would have permitted opinion testimony on the ultimate facts to be decided by the jury. It may seem unusual to argue the failure to adopt a rule as an indication of the status of the law, but this is the situation. By long standing common law precedent, expert witnesses, with very few exceptions, have not been permitted to testify, by opinion or otherwise, on matters that the jury ultimately must decide. There are a number of theoretical and practical reasons for this rule. The first is the obvious danger that the expert will cause the jurors to abdicate their duty to find facts and decide an issue because an expert says that it is the right decision. On a more theoretical level, Section 7 of the Constitution, as given effect by RCr 8.22 and RCr 9.58, leaves all fact questions exclusively to the jury. The law of Kentucky does not allow the trial judge to comment on the evidence or advise the jury through the instructions what

the law of the case requires. Rather, the judge gives "bare bones" instructions that only ask the jury the fundamental factual questions that must be resolved. If the judge cannot influence the jury, there is an obvious parallel with respect to expert witnesses. They should not be allowed to influence the jury's fact finding decision either. Expert witnesses are permitted to testify to assist the jury, not to make the decision for it. Therefore, both conceptually and practically Kroth and Sargent are wrongly decided.

The problem is that in the absence of a rule governing a particular evidence situation, the common law prevails. It is necessary to argue for change in the common law. This is done in conjunction with an argument that the evidence does not qualify under KRE 702 anyway. But to get the decisions in Kroth and Sargent overturned, it is necessary to show that the theory supporting these cases is not grounded upon sound logic and has been discredited by actual experience so that reliance on them amounts to perpetuation of error. *Vaughn v. Knopf*, 895 S.W.2d 566 (Ky. 1995). SCR 1.040 (5) will require the circuit and district courts to follow *Kroth* and *Sargent*, but it is necessary to raise this issue and present it on appeal so that the Supreme Court will have the opportunity to make the change. Change is necessary because it is essentially silly to allow police officers to tell the jury what the answer is when almost no other experts are permitted to do so.

A related problem arises when police officers involved in the arrest are also qualified as experts. There is a great danger that the jury will confuse the two types of testimony and use the officer's expert testimony as corroboration and validation of the officer's eyewitness testimony. The danger is particularly great if the witness is "tendered" as an expert and given the judge's seal of approval. This problem has been recognized in the Second Circuit. In *United States v. Tapia-Ortiz*, 23 F.3d 738 (2nd Cir., 1994), the court held that expert testimony cannot be used solely to bolster the credibility of the "fact-witnesses by mirroring their version of events." *Id.* at 740. In that case, the agents were permitted to testify as to typical "drug behavior" which just so happened to be what they said the defendant did in that case. Although the court did not find error in Tapia-Ortiz, the principle is valid. If the prosecutor introduces two or three of the police officers who participated in the drug bust and uses one or all of them as experts on the "drug trade," it is very unlikely that the jury will be able to make the distinction between the supposed typical behavior of drug dealers and the behavior of your defendant. This simply cannot be permitted. If nothing else, the judge must force the Commonwealth to decide between one role or the other for these witnesses.

The Supreme Court has held in *Renfro v. Commonwealth*, 893 S.W.2d 795 (Ky. 1995) that KRE 702 limits expert opinion and evidence to those instances in which it will assist the triers of fact to understand the evidence or resolve disputed factual issues. Perhaps some readers say that given the strength of the Commonwealth's evidence in most drug cases, the expert opinion testimony of the police officers really doesn't amount to a pressing problem. And if these readers are talking about hand to hand buys, they may be right - to a certain extent. But courts are creatures of custom and habit. If a judge gets in the habit of allowing police officers to testify to all sorts of things in drug cases where it most likely will not be harmful error, that judge is going to be more likely to allow the police officers to testify in cases where it may make a real difference. It is important to challenge the improper use of police as experts in every drug case because judges and prosecutors need to be reminded regularly that police officers, although often the most credible witnesses, often are the least relevant.

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Doubt is not a pleasant condition but certainty is an absurd one.

- Voltaire

Using An Expert in Marijuana Cases

Every defendant in a marijuana case faces at least one prosecutorial witness who proclaims to be an expert (the PE) regarding marijuana use, sale or cultivation. The PE usually makes statements such as "This is among the most sophisticated gardens we have seen in this area," or "There is no way that this could be personal use. It would take four years to smoke this much." Without a rebuttal, the court usually has no recourse but to accept the prosecution's theory. The best way to bring some truth to the court is to present a witness of your own.

Defense attorneys can use experts for three distinct purposes: to frame the case, to help with the cross examination of the other side's experts and for direct testimony.

Framing the case-developing a theory that is reasonable to the court-can be the most important use of the expert. The prosecution's theory may be based on inadequate information, misreading the evidence or reliance on the court's ignorance. The defense requires an understanding of the situation, something the expert can do. The defense witness has the training to provide a realistic assessment of the evidence and other aspects of the case.

The prosecution's case is based on a number of assumptions including: each plant has a predetermined yield; all parts of the plant are useable; there is a set maximum amount that people can smoke; almost all users have intent to deliver.

All of these assumptions are the result of some mythical averaging, but do not deal with the particulars of the case. The defense expert has a better understanding of what the defendant was doing, and once the court hears the explanation, the court is more likely to be sympathetic.

In one case in which I participated an attorney was charged with cultivation with intent to sell. *California v. James MacPhee*, Orange County Superior Court, Case # C-82830 PC-1000 (Diversion Hearing). He had been growing in a small unit, and had about two ounces of good bud. However, he was a packrat and had saved everything he had ever grown. The police found five pounds of fan leaves, sterns and male plants. Based on the quantity, the prosecution decided that this had to be intent, and the main PE said so. The defendant's own lawyer originally believed the defendant had intent to sell and thought the case was lost based on the weight. We were able to show the court at the hearing that the material had little economic value and that the defendant had no incentive to deliver. He was given diversion.

Cross-examination can be a painful process for the prosecution's alleged expert. Usually, the experts face a cross-examination by an uneducated attorney and can appear quite knowledgeable about their subject. As soon. as the experts are faced with a well-prepared cross-examination, their lack of information becomes apparent.

Charles Stowell, now a DEA agent, claimed that each plant would yield at least a pound of bud. *California v. Todd Johnson*, Woodlake Municipal Court, #4429, Sept. 1988. He testified that the plants would be ripe in six weeks. The defense attorney, Bill Logan, had Stowell hold a plant which weighed less than an ounce. Stowell maintained that the plant would grow a pound of useable material in a month and a half. The court took notice of the situation and had Logan continue the cross on another issue. Stowell was obviously discredited.

Most prosecution marijuana experts have never faced a real voir dire and do not fare well when they are tested. Here are some questions, and the PE's usual answers, that will help expose the lack of knowledge of an alleged cultivation expert:

(1) What drug classes did you attend?

(2) In those classes how much time was spent specifically on marijuana? (Usually not much.)

(3) How much of that time was spent on ID'ing marijuana? (Usually most of the class time.)

(4) How much time was spent on cultivation? (A few hours.)

(5) How much time was spent on yields? (Some time. I don't remember exactly how much.)

(6) How much time was spent on indoor cultivation (Very little specifically on indoor.)

(7) Did the class cover the difference in yields between indoor and outdoor plants? (No.)

(8) Did you use any texts? (Yes.)

(9) Do you remember their names? (No.)

(10) Who taught the cultivation class ? (I can't remember.)

(11) Did the class cover use versus sale? (Very little.)

(12) What is the difference between indica and sativa? (I don't know.)

(13) Have you ever manicured or seen a plant manicured to test its yield? (No.)

(14) Have you ever testified that a grow was not for sale? (Yes.)

(15) What case? (I can't remember.)

(16) Are there separate male and female plants? (All kinds of answers.)

(17) How do you tell the difference? (All kinds of answers.)

(18) Do growers treat them differently?

(19) Why?

(20) How do you cause a plant to sex? (All kinds of answers.)

(21) How large does a marijuana plant have to be to flower?

(22) What is the significance of spacing regarding plant yield. (I don't know.)

(23) Would it be of significance to you if there were several varieties of marijuana growing in a garden? (No. Marijuana is marijuana.)

(24) Do you know what CO^2 is used for? (To grow the plants?)

(25) What significance does it have? (I don't know. Makes them grow faster?)

The voir dire can concentrate on other areas depending on the crux of the case. If the cop is to testify regarding intent, use or yield, the questions can be tailored to bring out the lack of depth of his knowledge. Your expert can help you develop the questions for your probe into the abyss of the prosecution's ignorance. It is unusual that a PE is found unqualified, but it has happened. However, a vigorous voir dire can affect the PE's credibility.

The voir dire can test each aspect of the PE's expertise. He may be qualified at identifying marijuana. Does that make him an expert in price, use, quality, intent? How did he get his knowledge in this area, from a four hour class and interviewing a bunch of self-serving arrestees?

The direct examination is used to provide new theories to the court and to rebut testimony of the PK. This is important because the court is likely to side with the prosecution even if its theory has been damaged. in the absence of another plausible explanation.

For instance, in cultivation cases, the question of personal use or intent to distribute is an important issue in some states. The prosecution may make a conclusion based on several criteria:

(1) QUANTITY OF MARIJUANA - This is one of the main factors the prosecution uses to determine whether the marijuana was for personal or commercial use and to increase the sentencing.

Narcotics officers tend to overestimate the amount of marijuana involved. Frequently it is

not weighed. just an eyeball estimate is given. "It was a lot of marijuana. More than one person could smoke." Then they state. "Each plant is capable of producing one pound (or one kilo) of marijuana." *California v. Larry Foose*, El Dorado Municipal Court, Testimony of Officer Oscar Betts, 12/17/91. PEs try to avoid talking about the specific plants in question, but prefer to discuss the weight the plant is capable of producing and mythical averages. In some cases the prosecution experts have never looked at the evidence, but rely solely on their experience.

Before trial the defense expert will examine the evidence. weigh it and look for indications of growth stage, condition. quality and weight. All of these factors are important. If plants were growing from seed and were unsexed. half of them (the males) would be thrown away when they indicated sex. Plants which were grown in shade tend to be leggy with fewer flowers compared to stalk. This is very important in some states, where mature stalks are not illegal.

Not all marijuana is equal. Frequently growers throw leaf away, and it has little value commercially as compared with bud. A person with a lot of leaf is not necessarily commercial. They may be planning to use it for purposes other than for smoking, or it might have been collected from the trash, since the owner planned on dumping it.

Even if the physical evidence has been destroyed, the expert can analyze photos, videos and preserved samples in order to get an idea of the weight.

(2) NUMBER OF PLANTS - This is a very important factor in federal cases where the number of plants determines sentencing. Prosecution experts sometimes miscount plants or count cuttings incapable of self-supporting life as plants.

The defense expert may be able to mitigate the sentence based on the actual weight, but success in this area has been limited. One great win based on actual potential weight v. the mythical 1000 gram figure is *United States v. George and Robert Osburn*, Crim # 2:90-CR-13-WCO, Feb. 13,1991.

In state cases the prosecution expert may claim weight based on the number of plants times one pound (or one kilo). If the grower has a "sea of green" garden which is a technique of growing small plants very close together, the expert might say that the number of plants indicates the grower was growing a big crop. Then the defense expert must bring reality to the situation by discussing the actual weight and potential of the plants in the defendant's garden.

(3) PRESENCE OF SCALES - The PE would have the world believe that anyone who owns an ounce scale is a dealer. The expert can help put the scales in context. Were they postal scales? Did the defendant have a specific use for the gram scale?

The idea that anyone with a triple beam scale is a dealer is absurd. The court has to be educated about their presence in many non-drug user households. Also that some drug users use them to weigh what they buy, since prices are so high. Scales can be discounted when placed in a different context.

(4) PACKAGING MATERIAL - The state would have the court believe that anyone who owns zip-lock bags is a dealer, especially if the bags are found in proximity to the marijuana.

The defense expert can bring some clarity and reality to the court. After all, the judge and jury use the bags. Is this an indication that they are dealers?

The prosecution contended that five zip-lock bags they found in the trash with residue inside were packaging material indicating intent to sell. The bags had residue of different grades of marijuana, indicating a user who had bought pot. Without a defense expert, the prosecution's theory would have been accepted by the court.

(5) PAY/OWE SLIPS - Any scrap of paper with people's names and dollar amounts is immediately a pay/owe slip. In one case a few invoices from the store in which the defendant worked was presented as a financial paper.

Once this error was brought to the court's attention, the prosecution's expert lost quite a bit of credibility.

In another case the "pay-owe slip" turned out to be the accounts of the defendant's son's lawn-cutting business.

(6) LARGE AMOUNTS OF CASH - The prosecution would have the court believe that any large sum of money found by the police is an indication of illegal activity.

In one case the police had found over four thousand dollars when they raided the defendant's home. It was mostly in large bills and the prosecution expert testified that this typically indicated sales. The defendant was able to show that he had just sold his car and had not deposited the money into his bank account yet.

(7) INDICIA OF USE - Rolling papers, pipes and roaches indicate use, which helps prop up the defendant's contention that he was a user. In one case the police did not collect the indicia, but I photographed it at the scene. Presence of indicia, including books, posters, magazines, and pamphlets regarding marijuana use also tends to show that the person was using it and was perhaps very involved in it.

In states where non-profit transfer is not a serious offense, this indicia might indicate that the defendant was part of a sub-culture and regularly participated with friends.

(8) INDICATIONS OF WEALTH - The police immediately suspect a person of dealing if they see an indication of wealth, such as fancy cars or jewelry. It is usually up to the defendant to prove it was legitimate.

This may require the expertise of an accountant or tax attorney.

(9) SOPHISTICATION OF THE GARDEN - Prosecution experts think that a sophisticated garden is an indication of personal use or sale. Presumably, only commercial growers have access to this equipment, which is offered in general garden magazines such as *National Gardening*, and not in *High Times* since January 1990. I have never heard a prosecution expert say that a garden was not sophisticated. They usually use this as an indication that the purpose was sales. Although an unsophisticated garden is usually an indication of personal use, since the grass does not usually meet commercial standards, a sophisticated garden is not necessarily an indication of intent to distribute. After all, hobbyists often get very technically involved in their interest. The sophistication should not be substituted for potential or expected yield.

The defense expert brings other issues to the court's attention.

(1) THE SIZE OF THE GARDEN - No matter how many plants are in a garden, it has a maximum potential yield based on its space. In one case the prosecution claimed there were 94 plants. *U.S. v. Rod and Cynthia Klein*, District of S. Dakota, CR 87-40005. Half of them would be male so half of them, a total of 47 plants, each would yield one pound, for a total of 47 pounds. The three garden areas together totaled 25 square feet, the equivalent of 5'x 5'. We demonstrated in the court by reconstructing the garden spaces with pressboard, how absurd that contention was. The jury accepted my estimate of, under one pound, total.

(2) ACTUAL AND EXPECTED YIELD - The actual and expected yields of the grower are usually much lower than the police estimates. The police usually stick with one pound or one kilogram per plant. It is unusual to find a plant with more than six ounces of usable material.

In an indoor garden, you can figure that for each square foot of growing space, the yield will be between 1/4-1 ounce of bud. The variation in yield results from different growing techniques and varieties.

(3) DIFFERENT VARIETIES OF PLANTS - There, are thousands of varieties of marijuana ranging in a spectrum from indices to salivas. Commercial growers have an interest in uniformity so that the harvest time is the same, and the crop is the same for easy sale. On the other hand, gardeners have more of an interest in smoking several varieties. So a garden with mixed varieties is an indication of a connoisseur growing for his own use.

A mixed garden may also indicate a lack of sophistication. The grower might have germinated mixed stash seeds of variable quality.

(4) HOW MUCH THE DEFENDANT USED - The government supplies medical

marijuana users 10 .8 gram cigarettes a day. This comes to about six pounds a year. Most PE's claim that users cannot smoke more than a couple of pounds a year.

(5) DIFFERENT GRADES OF MARIJUANA, THEIR VALUE AND USE - Leaf, although considered as weight in the prosecutor's case, is not generally used and is not a commercial product. Its presence as part of the gross weight is often taken into consideration by an educated court.

Stems are often included in the prosecution's original estimate unless they are challenged.

Male plants are considered a nuisance by growers, not a source of smoking material or sales.

Since the expert can help you formulate a strategy in the case, he should be contacted as early as possible in the proceedings. He may be able to help with pre-trial motions, and it gives him more time for research and to develop demonstrative evidence.

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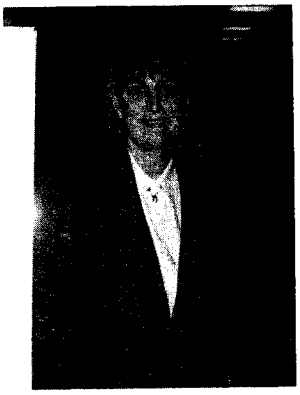
Ed Rosenthal is a researcher/writer located in Oakland, California. He frequently testifies regarding cultivation practices, marijuana botany, expectations, yield, intent, use and sales.

Coaches at the 1995 DPA Trial Practice Persuasion Institute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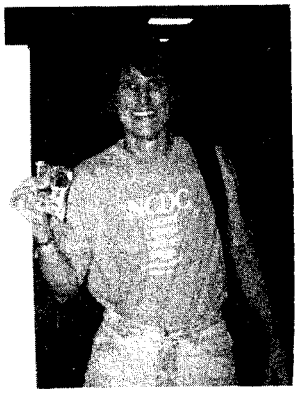
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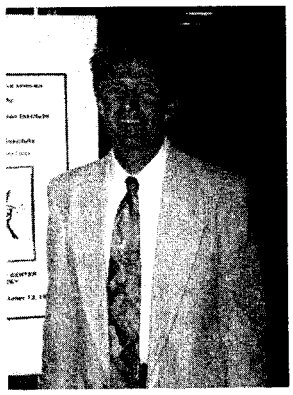
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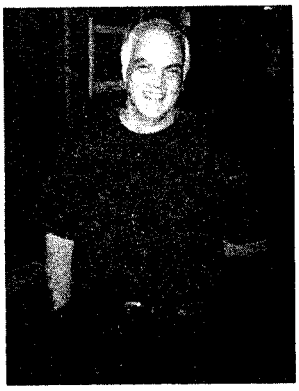
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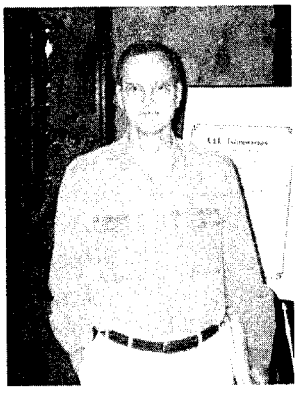
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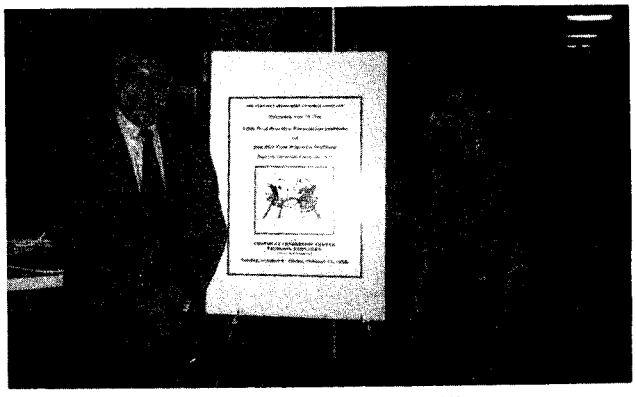
Marty Pinales & Linda Miller

Sentencing Alternatives for Clients with Substance Abuse Problems

In recent years, the Legislature has passed laws giving the Circuit and District Courts of Kentucky more options at sentencing hearings. KRS 500.095 and KRS 533.010 allow for community service and probation or conditional discharge with an alternative sentencing plan, as options to jail and prison.

Approximately 18% of Kentucky's correctional population are incarcerated on alcohol or drug related offenses. The percentage does not include the misdemeanant population incarcerated in county jails. From this figure, it is apparent that there is a need to be able to be aware of and recognize the indicators or "red flags" of someone with a substance abuse problem.

The following questions are a brief example of things that should raise "red flags" about substance abuse problems with your client.

1. Is the charge itself, an alcohol or drug related charge?

2. Does your client have a prior criminal history of alcohol or drug related offenses?

3. Is your client charged with a felony, but has absolutely no prior involvement with the criminal justice system?

4. Does your client have limited education?

5. Does your client have a history of changing jobs often or not being able to keep a job?

6. Does your client live in an environment where alcohol and drugs are prevalent?

7. Does your client have a close relative, parent, sibling or spouse with a substance abuse problem?

If the answer to any of these questions was yes, your client is exhibiting indicators of a substance abuse problem or the potential for the problem. Your next step is to confirm the existence of a substance abuse problem. Once it has been determined that there is a problem, how do you treat it?

An alternative sentencing plan can be developed to meet a client's substance abuse problem.

The most critical part of this plan, when dealing with clients with a substance abuse problem is the treatment. There are as many different types of treatments as there are types of substances being abused. Unfortunately for our clients, they are limited due to their income. As with most things, treatment takes a lot of money, money which is not allocated to treat indigent clients in significant amounts relative to the amounts spent on the prosecution of substance abusers.

Possible treatment alternatives are as follows:

1. Alcoholics Anonymous
2. Narcotics Anonymous
3. Individual Counseling, *i.e.*, Comprehensive Care
4. 28-30 day Inpatient Treatment Programs
5. 3 months - 6 months Long Term Treatment Program
6. Aftercare Programs
7. Halfway Houses
8. 1-3 year Treatment Programs which include various components of above including education and employment training (out-of-state)
9. Community-based substance abuse treatment programs such as DISMAS Charities, Inc.

When developing the treatment aspect of the alternative sentencing plan, you must first take into consideration many different factors regarding your client, *i.e.*; type of abuse, length of abuse, and availability of clients to participate in programs. In most cases, a combination of treatments are recommended. If the client is

in custody awaiting sentencing, you may recommend that the client participate in AA/NA programs or other types of counseling that might be available to them at the jail. In some cases, the client may have to serve additional jail time as a condition for probation. When this occurs, you may request through the plan that the client be allowed to participate in outside counseling services while in custody.

After the determination of what treatment is the most appropriate, you must also look to the sentencing options available. There are a number of options the Courts can use in sentencing defendants charged with crimes relating to drugs and alcohol.

One option is Home Incarceration or House Arrest. Home incarceration or House Arrest can be anything from the use of Electronic Monitoring devices being attached to a person's ankle or wrist and should she get out of a certain range or area, an alarm would sound at a monitoring station and record the time. The one monitoring the equipment would then notify the supervising officer and they would in turn find the person and arrest her. House arrest can also mean that the person is not allowed to leave the house. This means not at all, not even to go to the grocery, however, the judge can make special conditions such as allowing doctor visits or probation officer visits. Generally, these two options are used for those with physical or mental problems where incarceration would put an unnecessary hardship on the person or the jailer or jail. They can also be used in conjunction with work or school release.

Another option is jail release. In this situation, the client is released from jail in order to go to work or go to school. The client would be released from a certain time in order to get to work until another specific time after work with enough time only to get back to the jail. This allows the client to keep supporting himself and his family while still having to serve time for his crime.

A split sentence is another option used by some judges in lieu of incarceration. This option is where a client is incarcerated a certain amount of time and then released on probation, or he is released for a specific amount of time and given a date to return to jail and serve an amount of time.

An option provided for by the statutes is community service. The judge can set a certain amount of hours of community service which the client must complete in lieu of time in jail.

Also, the judge might sentence a person to an education program or an employment program in lieu of prison or jail time. These programs might be ones in which the client is already involved, that the client wants to be involved in or that the judge, himself, or you, along with an instructor of an educational center have developed.

A program used in most all the options is a drug and alcohol screening in which a person is told to give a urine sample and that sample is tested for certain drugs or alcohol in the system. These screenings are usually scheduled by the probation officer or a specified person by the court. If the screenings come back positive for a drug, the judge has the ability to bring that person again before the court and revoke or order other conditions on the individual.

These are only a few examples of options which can be presented to the court. Only you, your imagination and your client can limit those which could be presented.

Developing an alternative sentencing plan which has been specifically designed to meet a particular client's substance abuse problem, reduces the likelihood of that client's future involvement in the criminal justice system.

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Treatment with Criminal Justice Authority

Introduction

Drug abuse treatment has a traditional relationship with the criminal justice system (Maddux 1967, 1978). After briefly reviewing that relationship, this article presents opportunities for enhancing drug abuse treatment with criminal justice authority and describes the diversion for Drug Abuse Treatment (DAT) Program being developed in Kenton County, Kentucky.

The history of drug abuse treatment in the United States can be traced to two Public Health Service (PHS) farms -- one at Lexington, Kentucky in 1935 and the other at Fort Worth, Texas in 1938. As drug abuse treatment matured, these facilities were called PHS hospitals, and later, clinical research centers. Treatment at these facilities was designed primarily for Federal prisoners, but voluntary patients with no Federal court pressure could also receive treatment. However, after withdrawal from drugs, most voluntary patients did not stay, and, with no community follow up, there was a high relapse rate (Pescor 1943; Vaillant 1966).

A milestone in the area of linking drug abuse treatment and the criminal justice system is Treatment Alternatives to Street Crime (TASC), which was initially established by the Special Action Office for Drug Abuse Prevention in 1972. TASC can be described as a diversion program, as case management, and as a bridge between the criminal justice system and the drug abuse treatment system (Cook and Weinman 1988). TASC provides identification, assessment, referral, case management, and monitoring services for drug- and alcohol-dependent offenders accused or convicted of nonviolent crimes (Bureau of Justice Assistance 1988). Case management is used with other groups, including the elderly and in mental health populations, as "...an approach to service delivery that attempts to ensure that clients with complex, multiple problems and disabilities receive all the services they need in a timely and appropriate fashion" (Rubin 1987, p.212).

Drug Use and Criminal Justice

The criminal justice system has a large number of drug abusers. Both adults and juveniles report that they are using drugs at the time of their arrest. This high level of use is substantiated with current information as well as early data from Eckerman and coworkers (1971) who found, in a sample of arrestees from six major cities, that 49 percent were drug users and 64 percent had used drugs at some time. Another early study (Barton 1976) reported that 30 percent of State correctional facility inmates had used heroin before they were arrested, 21 percent had used it daily, and 14 percent were using heroin daily at the time of their incarceration. A 1975 State survey by the New York Department of Corrections found higher rates, with 58 percent of State prison inmates reporting drug abuse before incarceration (Joseph 1988).

More recent studies support these earlier findings. Data from 25 cities participating in the Drug Use Forecasting (DUF) system indicate that about 60 percent of arrestees were using drug other than alcohol - confirmed with urine tests - at the time of their arrest (National Institute of Justice 1994). In another study, State prison inmates' self-reports showed that 43 percent were using drugs daily or almost daily in the month before their offense; 35 percent also said they were under the influence of a drug at the time they committed their offense-up from 32 percent in 1979 (Bureau of Justice Statistics 1987).

On the other side of the coin, drug abusers in treatment are involved with the criminal justice system. They are frequently on probation, parole, or mandatory release. Early data from the Client Oriented Data Acquisition Process (CODAP) revealed that 17 percent of clients who entered drug abuse treatment were on probation, parole, or mandatory release (National Institute on Drug Abuse 1974). By 1982 CODAP reported a four percent increase of criminal justice involvement for persons in drug abuse treatment to 27 percent for males and 15 percent for females (National Institute on Drug Abuse 1982).

Diverting Drug Abusers to Treatment

The following principles can serve as background for drug treatment diversion activities.

The Criminal Justice System Provides an Environment for Identifying Potential Drug Abuse Clients

As suggested by the previously cited studies and underscored by the recent findings from the DUF system, there are a large number of adult drug abusers -- about 60 percent -- and juvenile drug abusers -- more than 60 percent -- (Bureau of Justice Statistics 1988) who come into contact with the criminal justice system. From a system's point of view, jails and lockups could serve as natural entry points to provide early intervention, information, and drug abuse treatment referral. More than 1 1/2 percent of the U.S. adult population (2.6 million adults) were under correctional supervision in 1985, with more than 1.8 million persons on probation (up 18 percent from 1983), more than 250,000 in jail (up 14 percent from 1983), more than 500,000 in prison (up 15 percent from 1983), and more than 277,000 on parole (up 12 percent since 1985) (Bureau of Justice Statistics 1988).

Probation and Parole Can Enhance Behavioral Contingencies

Drug testing, treatment exposures, and incarceration as well as other court sanctions can be used to keep drug abusers in treatment and reduce drug use. Several studies support the importance of parole in reducing drug abuse (Diskind and Klonsky 1964; Diskind 1967). Brill and Lieberman (1960) reported that rational authority (*i.e.*, involuntary rehabilitation of addicts with court coercion) was the most important factor in the treatment of narcotic addiction. McGlothlin and coworkers (1977) found that close supervision of parolees, including urine testing, resulted in lower daily narcotic use and less criminal activity than supervision without testing. However, the effectiveness of criminal justice referral to drug abuse treatment is not consistent. For example, Stitzer and McCaul (1987), after reviewing selected alcohol and other drug abuse studies, suggested that the treatment studies they examined did not demonstrate effectiveness. However, they added that community supervision programs combined with substance use monitoring and possible incarceration may reduce substance abuse.

The Criminal Justice System Can Capitalize on Establishing a Working Relationship with Drug Abuse Treatment To Decrease Drug Use

Referral to treatment from the criminal justice system is not always a simple matter. The dilemma is highlighted by Hubbard and colleagues (1988) who reported, in a 3-year follow up study, that less than 3 percent of clients in outpatient methadone maintenance treatment were referred to treatment by the criminal justice system compared with about 30 percent of residential and outpatient drug-free clients. Thus, methadone maintenance treatment, which appears to be a most effective drug abuse treatment modality for heroin users, is least used by the criminal justice system. Anglin (1988) reported that methadone maintenance combined with civil commitment was a powerful combination for decreasing drug abuse and enhancing positive behaviors. Finally, probation and parole officers have considerable information about individuals on their caseloads. This information can be useful for augmenting treatment planning and carrying out drug abuse treatment.

Compulsory Treatment in the Form of Civil Commitment Can Reduce Intravenous Drug Abuse but Should Not Be Considered a Panacea

Reporting on the results of the early California Addict Program follow up study, Anglin (1988) maintains that parole should be used to monitor addicts against relapse to addiction. After reviewing the follow up studies from the federal PHS hospitals, Maddux (1988) suggests that treatment with legal coercion, when combined with compulsory community follow up, produced better outcomes but not vastly different from those for voluntary patients. Civil commitment also has serious limitations (Maddux 1988), including the following: It cannot overcome service deficits; coercion can bring a person into treatment, but it cannot force participation; and civil commitment operates within constitutional guarantees of civil liberties. Civil commitment is also administratively cumbersome and expensive. If it is effectively implemented, appropriate sanctions must be available, including incarceration.

Court Referral to Drug Abuse Treatment Generally Increases the Length of Time Drug Abusers Remain in Treatment

Several studies -- including Levine and Monroe (1964), McGlothlin and colleagues (1977), Leukefeld (1978), and Collins and Allison (1983) -- found that patients involved with the criminal justice system remained in treatment longer than those not involved with the criminal justice system. Retention in treatment was a major force behind the enactment of the federal Narcotic Addict Civil Commitment Program (NARA) legislation. However, the findings are not uniform for prisoner addicts. For prisoner addicts committed under NARA Title II, Friedman and colleagues (1982) reported that NARA did not accomplish all that was intended but may have contributed to reduced drug use. Englin (1986) found that prison treatment followed by purchased community treatment did not reduce drug use for prisoners civilly committed under NARA title II.

Linking Drug Abuse Treatment and the Criminal Justice System Can Help Disrupt the Addiction Life Cycle and Decrease Drug Abuse

Case management services with TASC serves as an example of an effective case management approach (Lazar Institute 1976; System Sciences, Inc. 1978; Hubbard *et al.* 1988) that bridges drug abuse treatment programs and the criminal justice system. TASC does this by increasing communication as well as coordinating more effective drug abuse treatment. For TASC clients, drug abuse treatment is used as an alternative or supplement to criminal justice sanctions and procedures.

Kentucky Department of Corrections

The Department of Corrections has explored several creative and cost effective options to incarceration. When appropriate, persons whose crimes are associated with drug/alcohol abuse or dependency issues are screened for treatment needs and mandated to alternatives to incarceration.

In three of the largest metropolitan areas of the state, day treatment programs provide cost effective, intensive, structured treatment for offenders. Initially, offenders in these programs are monitored and involved in programs six to eight hours per day for the first month. After that period, they are required to find employment and to continue their involvement in the evenings for several months. The frequency of contact provided by these programs aids the probation officer in his/her task of providing serious consequences for inappropriate behavior as well as closely supervising the offender. All of these programs use extensive drug testing to assure compliance with treatment requirements and rules of probation.

Throughout the state, offenders whose offense is related directly or indirectly to drugs or alcohol may be referred to out-patient or other appropriate levels of treatment. If the offender is able to comply with this condition of probation or parole, he or she may interrupt the dependency/abuse cycle thus avoiding a revocation. Additionally, referrals to treatment can be made in lieu of revocation when the violation involves illicit use of chemicals. This is significant because the vast majority of technical revocations of probation or parole are a direct result of drug or alcohol use or related behaviors (*e.g.*, stealing to support an addiction, or selling drugs). Consequently, the Commonwealth's most expensive resource for controlling serious and violent crime -- incarceration -- is being depleted by drug/alcohol addicted individuals.

The Alcohol and Other Drug Abuse (AODA) Program within the DOC's Division of Mental Health has embarked on an innovative initiative to help address this problem by providing each Probation and Parole District with a Substance Abuse Coordinator. These paraprofessional drug/alcohol counselors provide assessments, consultation, and referral assistance for the officers in addition to conducting in-house pretreatment drug/alcohol education and aftercare groups.

These counselors monitor the services provided to clients and act as a liaison between the treatment provider and the officer insuring greater compliance with the requirements of treatment as well as the rules of probation and parole. Persons at risk for being revoked are identified so that the intensity of available resources can be focused on them thus interrupting the abuse/dependency cycle and the "revolving door" syndrome which returns them to prison. National studies repeatedly demonstrate that the longer a person is in contact

with some form of structured treatment, the more successful they are in maintaining a crime free lifestyle. These new efforts provide the opportunity for long term contact in the form of in-house aftercare groups. This should reduce the recidivism rate among this population and leave the expensive resource of incarceration available for violent offenders.

Kenton County Diversion for Drug Abuse Treatment Pilot Project

The Diversion for Drug Abuse Treatment (DAT) project is being implemented in Kenton County, Kentucky with funding from the Justice Cabinet. DAT will use a system of differentiated case management combined with increased and enhanced treatment alternatives and community sanctions.

There are three overall goals for the DAT project: (1) Cases will be expedited to reduce the overall time from arrest to disposition for offenders charged with drug offenses. By modifying the way cases are processed, and conditionally diverting a portion of cases from further prosecution, judicial and attorney resources can be more effectively used to achieve quicker dispositions; (2) Interventions and drug treatment will be part of the project in order to enable more effective control as well as rehabilitation for targeted offenders who are involved in the drug-crime cycle; (3) Case processing improvements that result from this project can be transferred to other courts in Kentucky if judges and others in the criminal justice system choose to do so.

In this project, the judge is the central person to facilitate the effective implementation of sentences. Using judicial authority, it will be assured that treatment and supervision are delivered in a coordinated and effective manner. The structure of this project is designed to actively conduct and support the approach of compulsory treatment -- using the criminal justice system to facilitate offender retention and successful treatment outcomes.

Those defendants arrested for drug offenses with felony or drug convictions and who are charged with offenses not carrying a mandatory sentence are targeted for the project. These defendants are those likely to be placed in intermediate sanctions, and they would usually not be considered for incarceration. A diversionary alternative will be established. The prosecutor will decide that for certain defendants, an expedited decision with treatment and control is preferred to a trial. Diverted cases will be closely monitored by the judge. Diverted offenders will be ordered into urine testing and close monitoring. To participate, the offender must waive a speedy trail, and agree to trial upon stipulated facts if project and program conditions are not met.

The prosecuting attorney has the opportunity to rapidly identify these defendants as appropriate and notify the judge who will schedule the initial proceedings. Notice will be given to the attorneys, defendant, and the Diversion for Addictions Treatment (DAT) Project. DAT will be responsible for conducting a substance abuse and addictions assessment and will submit preliminary treatment intervention recommendations to the judge for distribution to the attorneys prior to the hearing. Persons who need services will then be referred to DAT for intervention and monitoring.

The DAT project is designed to provide comprehensive primary treatment services as well as providing and/or brokering ancillary services such as job training and placement assistance, education, and health care. Services will be provided by DAT using the highly successful approach developed by TASC. TASC is a well documented methodology developed to improve retention and outcome rates for offenders in treatment by providing thorough assessments, referrals to appropriate referrals, case management services, tracking and interventions.

DAT staff will complete the initial assessment at the earliest possible time and will provide preliminary treatment and intervention recommendations to the court and attorneys for use in disposition. After disposition, DAT staff will ensure that treatment is provided and that treatment placement occurs. DAT will provide treatment intervention using a time defined cognitive behavioral developed by the University of Kentucky Drug and Alcohol Center which is called Structured Behavioral Outcome Therapy (SBOT). This approach involves required individual sessions, group sessions, and urine/breath tests as well as responding to random telephone calls within a specified time. DAT will work closely with the court and other treatment providers to ensure effective service coordination and offender change. Judges will

receive regular progress reports and will receive specialized reports when additional action is taken on a case.

The DAT project is part University of Kentucky with a dedicated line to input and analyze treatment and assessment data that will be stored in the University of Kentucky computer with access to information limited to project staff. Because judges will have data access, opportunities will be available to try techniques and approaches such as intermediate sanctions including incarceration and other methods to motivate clients to recover based upon the judges decision. A consortium of treatment and intervention providers will provide intensive outpatient, outpatient day treatment, residential, and other interventions as needed. In addition, a urine monitoring only program will be an integral part of the project intervention.

Conclusion

The use of court authority, referral to drug abuse treatment, and diversion to treatment has a tradition in the United States. In general, the use of court authority should not be ignored. Case management and interventions focused on the addiction career for drug users who commit crimes by reducing the time spent using drugs can make drug interventions more effective, which is the purpose of the Kenton County DAT Project.

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This article appeared in the November 1995 issue of the ***Neva News****, an English language newspaper published in St. Petersburg, Russia:*

The Mayor Visits The Prison

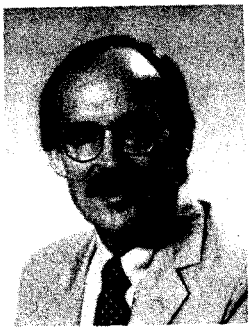
The Mayor of St. Petersburg, Anatoly Sobchak, is the first person of his standing to visit the "Kresty" prison. That does not mean, however, that the city is yet in a position to render significant financial aid to that beleaguered institution.

According to the prison's administration, there are 9,817 people held there, all of whom are awaiting sentencing. That is about three times the maximum it can safely accommodate, which is 3,300 people. A mere 2,500 roubles a day is spent to feed each inmate - and the guilt of these people has yet to be determined. [In November 1995 the exchange rate was one United States dollar equals approximately 4,900 roubles.] The prison's tuberculosis ward, which was made to hold 120 people, houses 340 inmates with open forms of tuberculosis.

The inmates complained to the mayor that they often have to wait a year and a half behind bars. It is not uncommon that after spending many months in jail, people, including innocent ones, are simply released. The situation at "Kresty" is made even worse as funds assigned for feeding and housing them are not punctually received by the prison. The federal government still owes the prison 10 billion roubles it promised to pay.

The city has only very recently begun to help the "Kresty" prisoners. 200 million roubles were assigned for purchasing food. And for the first time in the prison's history, special stomatology equipment is now in place in the prison's hospital. This was done on the initiative of city government workers, and was funded by the "Siemens" company.

Plain View



Ernie Lewis

United States v. Gatewood

The Sixth Circuit has had the opportunity to review a knock and announce case for the first time since *Wilson v. Arkansas*, 115 S.Ct. 1914, 131 L. Ed. 2d 976 (1995). *United States v. Gatewood*, 60 F.3d 248 (6th Cir. 1995). In this case, the Memphis Police made a controlled delivery of cocaine base to Mr. Gatewood's apartment. Thereafter, a search warrant was executed. The manner of the search warrant's execution was litigated at a suppression hearing.

Judge Guy, writing for himself and Judge Boggs, held that the manner in which the apartment was entered was not violative of 18 U.S.C. §3109, the knock and announce provision of the U.S. Code. The Court found that there was no forcible entry, but rather that the door was opened by the occupants, and thus no violation of 3109 was present. Furthermore, the Court found that the police knocked (by kicking with their feet), announced (by yelling), and entered within 10 seconds after not being allowed entry.

Judge Jones wrote a dissenting opinion. In his view, there was a forcible entry which occurred 7 seconds after the knock and announce. He notes that case law demonstrates that "where officers have waited less than ten seconds after knocking and announcing before forcibly entering the premises, and there are no exigent circumstances to justify such a rapid entry, courts have generally found that such action violates §3109." Finding no exigent circumstances, Judge Jones would have reversed the lower court's denial of the motion to suppress.

United States v. Mesa
62 F.3d 159 (6th Cir. 1995)

The Sixth Circuit has issued an important decision relating to how far the police may go after stopping a citizen for a routine traffic violation. Here, Mesa was stopped for speeding. After the officer decided to give her only a warning, he placed her in the back seat of the police car, from which she could not leave. She was then detained as the police questioned her and her sister, who remained in the car. A police dog was used on the car; the dog did not alert. A consent to search was given. After the initial search produced nothing, the sister and her children were also placed in the police car. Luggage was removed from the trunk of the car, and eventually a partition was discovered and removed, revealing a large quantity of cocaine and firearms. The defendant eventually entered a conditional plea of guilty after losing her suppression motion.

The Court reversed in an opinion written by Judge Guy and joined by Judges Martin and Daughtrey. Significantly, the Court noted that the Court had given the police great latitude in stopping cars for traffic violations, and not looking for pretextual reasons for the stopping. "In *United States v. Ferguson*, 8 F.3d 385 (6th Cir. 1993) *en banc*...we gave the green light to police officers to stop vehicles for any infraction, no matter how slight, even if the officer's real purpose was a hope that narcotics or other contraband would be found as a result of the stop." As a result, "we have a duty to see that the authority is not abused."

The Court then proceeded to hold that the Fourth Amendment was violated in this case. Mesa had been detained beyond the purposes of the traffic stop. Nervousness and answers inconsistent with her sister did not give the police reason to detain her further. "This case is simply one in which the officer crossed over the line of permissible conduct subsequent to a legitimate traffic stop."

This is an important case, particularly for defenders working near major interstate highways. Stopping vehicles on the interstate for traffic violations is a favorite tool of the police. This allows them to expose the vehicles to nar-

cotics dogs, possible "consent" searches, and other methods for getting inside the car. The Sixth Circuit in this opinion states clearly that the police will be scrutinized carefully for any detention beyond that which is reasonable.

United States v. Kennedy
61 F.3d 494 (6th Cir. 1995)

Another conditional guilty plea was appealed to the Sixth Circuit. In this case, Kennedy lost his bags when flying from Detroit to Miami. The bags ended up in Washington D.C. The bags were opened for identification purposes as a result of Northwest Airline's internal policy. One bag contained $176,000. This fact was reported to the police. The other bag was x-rayed by the police, which revealed a rectangular object. The airline employee then opened the second bag, finding several packages wrapped in brown duct tape. A field test by the police revealed the presence of cocaine. The suitcases were delivered to the defendant, after which the defendant was arrested. The defendant filed a motion to suppress the cocaine seized from the second suitcase, in addition to all derivative evidence. The district court affirmed, holding that the evidence was admissible under the inevitable discovery exception.

In an opinion written by Judge Todd and joined by Judges Milburn and Batchelder, the Sixth Circuit affirmed. The Court noted that whether the inevitable discovery exception requires proof that the government had an investigation ongoing that was independent of the illegality had divided the circuits.

Relying upon a review of prior case law, the Court holds that an independent line of investigation is not a prerequisite to an application of the inevitable discovery exception. The Court decided that had the government not illegally opened the suitcase, it would have been returned to Northwest Airlines, which would have opened the suitcase, discovered the cocaine, and contacted the police. "Because a private search was inevitable, the cocaine is admissible pursuant to the inevitable discovery exception to the exclusionary rule."

In an aside, this case involved some 17 kilograms of cocaine and 77 grams of cocaine base. The defendant was sentenced to the mandatory minimum of 120 months imprisonment. In my jurisdiction, people are getting 5-10 years for a sale of 50 milligrams of cocaine sold on the street. So much for the harsher federal sentences.

United States v. Travis
62 F.3d 170 (6th Cir. 1995)

This case involves an Equal Protection claim rather than a Fourth Amendment claim. However, it also focuses on familiar issues.

Here, the Cincinnati Airport police was engaged in random "consensual encounters." Det. Mike Evans decided to have such an encounter with Angel Chavez because he viewed her name as odd, she had purchased a one-way ticket from L.A. to Cleveland, and she had bought her ticket before the flight left.

When the flight arrived in Cincinnati, Evans failed to locate anyone whom he believed to be the Hispanic Chavez. He then found two African American women and questioned them. One turned out to be Angela Travis, who allowed for a consensual search of her luggage, revealing the presence of cocaine.

The Court acknowledged that "consensual searches may violate the Equal Protection Clause when they are initiated solely based on racial considerations." However, in this case, the Court further held that "the detectives developed several reasons for approaching the defendant that were completely independent of her race." Accordingly, the Court denied Travis any relief and affirmed her conviction.

Short View

1. ***U.S. v. Ramirez***, 63 F.2d 937, 57 Cr.L. 1474 (10th Cir. 8/8/95). The Tenth Circuit has held that a magistrate may read a search warrant affidavit, and thereafter change both the affidavit and the warrant itself. Here the Court allowed for a search of the person of the defendant for a key he had used in going into a building during a cocaine buy. Changing the warrant was reasonable because it is the duty of a magistrate to ensure that the warrant is consistent with the attached affidavit. Altering the affidavit was more troubling; however, the Court held that this did not render the magistrate biased under *Lo-Ji Sales Inc. v. New York*, 442 U.S. 319 (1979). The Court was im-

pressed that the affidavit changes were minor and were made due to the probable cause apparent from the affidavit.

2. ***State v. Juarez-Godinez***, 135 Or.App. 591, 900 P.2d 1044, 57 Cr.L. 1483 (Ore.Ct.App. 7/26/95). Under the Oregon Constitution, having a dog sniff the outside of a vehicle during a traffic stop is a search requiring a warrant.

3. Many in the criminal defense bar have known for some time that facts written in affidavits in support of search warrants, and testimony given by police officers at suppression hearings were often only tangentially related to the truth. Knowing it and proving are two different things. I thought of these things when I heard Mark Fuhrman say on those Simpson tapes "Probable cause?...You're God."

4. ***State v. Bullock***, 901 P.2d 61, 57 Cr.L. 1505 (Mont. Sup. Ct. 8/4/95). The Montana Supreme Court has decided that a search of an open field requires a warrant under some circumstances under the Montana Constitution. Abandoning the clear distinction between the curtilage and an open field, the Court held that a landowner has a right to privacy in his land irrespective of its proximation to his home. "We conclude that a person may have an expectation of privacy in an area of land that is beyond the curtilage which the society of this State is willing to recognize as reasonable and that where that expectation is evidenced by fencing, 'No Trespassing,' or similar signs, or 'by some of means [which] indicates unmistakably that entry is not permitted'...entry by law enforcement officers requires permission or a warrant."

5. ***State v. Robinette***, 73 Ohio St.3d 650, 653 N.E.2d 695, 57 Cr.L. 1591 (Ohio Sup.Ct. 9/6/95). It is a violation of the Fourth Amendment and the Ohio State Constitution to ask for consent from a motorist stopped for a traffic violation without first informing him or her that the stop is over and they are free to leave. "Most people believe that they are validly in a police officer's custody as long as the officer continues to interrogate them. The police officer retains the upper hand and the accouterments of authority...Therefore, we are convinced that the right, guaranteed by the federal and Ohio Constitutions, to be secure in one's person and property requires that citizens stopped for traffic offenses be clearly informed by the detaining officer when they are free to go after a valid detention, before an officer attempts to engage in a consensual interrogation."

6. ***State v. Chapman***, 64 USLW 2224, 1995 WL 525580, 58 Cr.L. 1008 (Utah Sup.Ct. 9/5/95). The Court held that it is illegal to detain someone in order to check whether a gun is stolen, when the gun is being lawfully carried and there is no articulable suspicion that it is stolen. The defendant had been detained for loitering; thereafter, the officers discovered the defendant's handgun in a fanny-pack. The Court held the officers could determine whether the gun was loaded or not, which would have been a crime. Detaining him further in order to run a records check violated the Fourth Amendment.

7. ***United States v. Cusumano***, 64 USLW 2229, 1995 WL 584973, 58 Cr. 1046 (10th Circuit 10/4/95). A warrant is required to use a "thermal imager" on a house. In an opinion at odds with that of other federal circuits, the Court holds that because a thermal imager obtains information about what is occurring inside a house, under *Katz v. United States*, 389 U.S. 347 (1967) and *United States v. Karo*, 468 U.S. 705 (1984), a warrant is mandated.

8. ***Commonwealth v. Cass***, 1995 WL 580845, 58 Cr.L. 1076 (Pa. Super. Ct. 10/4/95). It is a violation of the Pennsylvania search and seizure law for student lockers to be subject to a canine search. Canine searches, which are not searches under the Fourth Amendment, require a reasonable suspicion which was not present here. The Court further held that the student had a reasonable expectation of privacy in his locker. "[T]he search was justified at its inception. Mr. Papesh only heard vague reports that students were using drugs and dealing drugs. The record is devoid of evidence of particular incidents of drug use or drug dealing. There is also no evidence that Mr. Cass was using or dealing in drugs. We realize that drug abuse among students is a legitimate concern for school officials. However, vague, unsubstantiated reports do not amount to reasonable suspicion that was necessary to conduct the canine sniff search."

ERNIE LEWIS, Assistant Public Advocate Director, DPA Richmond Office

24th Annual Kentucky Public Defender Training Conference
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The Essence of Advocacy: Telling Our Client's Story Persuasively

David L. Lewis

Linda Meza

Featuring:

David L. Lewis practices law in New York City, concentrating on cases involving white collar and murder charges. He has represented alleged members of the Irish Republican Army, former Central Intelligence Agency agent, Edwin P. Wilson, former Head of State Panamanian General Manual Antonio Noriega. Lewis represented Carolyn Warmus in the first "Fatal Attraction" murder trial in Westchester County, which ended in a hung jury. The case is the subject of the book *Lovers of Deceit* by Michael Gallagher published by Doubleday. Shana Alexander also featured Lewis in her book entitled *The Pizza Connection* based on the seventeen month trial of the same name. Lewis has represented alleged members of the Gambino organized crime family as well as corporate officers and public officials. Lewis has been called the "Great White Shark" for his cross-examination skills. His style has been called "wily, in-your-face" and "a predatory courtroom technique." *Gentleman's Quarterly* called Lewis "The Bear from Bensonhurst" and "a Falstaffian Everyman, a Columbo of the Courtroom," "one of the country's leading authorities on national security issues and forensic evidence as well as an aggressive and highly controversial-courtroom performer." A local magazine *Westchester*, put it this way:

> In a way every trial is, as Lewis described in his summation for the Warmus case, a witch hunt. Standing between the accused and the stake, no one fights harder to put out the fire than Lewis.

Lewis has "awesome self-confidence," a "highly intelligent mucker, and if you let your guard down, he'll destroy you." *GQ* concluded about Lewis: The bear will reach the end of his high wire and take a bow, ready to perform his next act of daring. The *New York Post* has called him "a legal bulldog." He has been called "fearless" possessing the "Charm of a pitbull." The *New York Times* says "brilliant." He has lectured all over the United States and in foreign countries on criminal defense issues as maintaining the sense of outrage; judo cross-examination; storytelling, the lawyer's art; theory of the case in a murder trial; conspiracy law; theory of the case itself; maintaining a defense on a shoestring; and opening and closing arguments. David L. Lewis is Secretary of the National Association of Criminal Defense Lawyers; Past President of the New York State Association of Criminal Defense Lawyers; faculty member and on the Board of Regents at the National Criminal Defense College in Macon, Georgia; Adjunct Profession at Pace University Law School; member of the Advisory Board of the BNA Criminal Practice Manual, Washington, D.C.; and member of the Board of Directors of the Center for Community Alternatives. In association with the NACDL, Mr. Lewis was the former Chair of the Indigent Defense and Strike Force Committee.

Linda Meza is a social and cognitive psychologist. She conducts research on jury decisionmaking and assists attorneys in applying knowledge of *human information processing* and group dynamics to the preparation of their cases. The information processing model she has identified is derived from tests of actual jurors' comprehension, retention and judgment of evidence and instructions, 100's of juror interviews, and training as a cognitive psychologist. *Linda Meza and Associates* applies this model and the principles of social dynamics to the preparation of trial at all phases: Jury Selection; Investigation; Change of Venue; and Case Preparation. Dr. Meza has consulted in 52 capital cases since 1979.

Dr. Lee Coleman practices psychiatry in Berkeley, California. His concern over courtroom reliance on questionable psychiatric and medical opinions has lead to several dozen articles on forensic topics, as well as frequent testimony for both prosecution and defense. He is the author of *The Reign of Error: Psychiatry, Authority and Law*, and *Medical Examination for Sexual Abuse: Have We Been Misled?*, **Child Abuse Accusations**, Vol. 1, No. 3 (1989).

Robert Walker, MSW, LCSW, is the Director of the Bluegrass East Comprehensive Care Center which serves Lexington, Winchester, Nicholasville, and Stanton, Kentucky. He holds a Master's degree from U.K. and has 23 years experience as a clinician serving individuals and families. His clinical concentration has been in the areas of addictive disorders and cognitive therapy with mood disorders. He holds clinical faculty positions in the College of Social Work and the Department of Psychiatry in the College of Medicine at U.K.

Pathfinder on: *Drugs*

The Department of Public Advocacy (DPA) Library contains information dealing both with the illegal and the legal/medical uses of drugs. (Alcohol and DUI will be addressed in a separate pathfinder.)

BROWSING AREAS: Our library uses the Dewey decimal system of classification. Most books relating to drugs are filed in the 340 and the 610 ranges.

SELECTED BOOK LIST: *Physician's Desk Reference*, 49th edition (Montvale, N.J.: Medical Economics Data Production Co.) 1995. Descriptions of prescription drugs.

Reference area

♦ *A Primer of Drug Action*, 5th edition, by Robert M. Julien (New York: W.H. Freeman) 1988. Discusses drugs from nicotine and caffeine, to lithium and valium, to cocaine and marijuana. Explains usage patterns, effects, chemistry. Includes bibliographies, index, and glossary. **615.78 J94a**

♦ *Kentucky Alcohol, Drugs, and Mental Health Directory* (Frankfort, Ky.: Cabinet for Human Resources). City-by-city listing of local and regional mental health centers, state psychiatric hospitals. **Kept in librarian's office.**

♦ *Drug Abuse and the Law: Cases, Text, Materials* (student edition), by Gerald F. Uelmen and Victor G. Haddox (New York: Clark Boardman Co.) 1983. Chapter topics include trafficking, drug identification, possession, sentencing, treatment. Appendix features exercises and workshop activities to reinforce learning. **344.73 U22**

♦ *Drugs of Abuse*, 1988 edition (Washington, D.C.: Drug Enforcement Administration, U.S. Department of Justice). Useful for its descriptions of drugs and many color photographs of drugs in various stages of production. **616.86 U58d**

♦ "Identifying Drug Users and Monitoring Them During Conditional Release," by Eric D. Wish, Mary A. Toborg and John P. Bellassai (Washington, D.C.: National Institute of Justice) 1988. 25-page pamphlet with insight into law enforcement's methods and attitudes toward drug users. **Kept with pamphlets**

♦ "National Drug Control Strategy: A Nation Responds to Drug Use" (Washington, D.C.: The White House) 1992. Policy statement on prevention of drug use, with strategies for prosecution, including proposed state legislation. (Also available for 1989 and 1990.) **615.8 N277**

SEARCH AND SEIZURE MATERIALS: *Search and Seizure Checklists* by Michele G. Hermann (Deerfield, Ill.: Clark Boardman Callaghan) updated annually. Many specialized chapters on current law relating to topics including: warrants, vehicle searches, canine searches, and drug testing. **345.0522 H552s**

♦ Search Warrant Law Deskbook by John M. Burkoff (New York: Clark Boardman Callaghan Co.) updated semiannually. Mentions requirements for obtaining warrants, car searches, etc. Includes checklists for prosecution and defense sides to consider regarding individual issues. Includes federal and state-by-state list of special jurisdictional requirements. **345.73 B959s**

♦ *The OCDLA Search and Seizure Manual* (Eugene, Ore.: Oregon Criminal Defense Lawyers Association) 1989. Divided into sections on warrants and warrantless searches. Relies heavily on Oregon law, but may be a useful source of ideas for strategies. **345.73 C15**

♦ *Search and Seizure: A Treatise on the Fourth Amendment*, second edition, by Wayne R. LaFave (St. Paul: West) updated annually. Exhaustive, well-organized four-volume set, with extensive references to caselaw. **345.73 L159**

PERIODICALS: Current subscriptions:

♦ *Drug Law Report* (bimonthly)--Treats all angles of criminal law relating to drugs. No index.

♦ *Journal of Forensic Sciences* (bimonthly)--A likely source of analysis of the different methods of testing for drugs.

Titles for which we have some back issues only:

♦ *Search and Seizure Law Report* -- Several articles specifically address drug issues; general articles are often applicable to drug cases as well.

D.P.A. TRAINING VIDEOS: Videos may be borrowed by contacting the librarian.

♦ V-224 (a) **Evidentiary Issues and Standards in Forensic Cases**. (0:50) Vince Aprile; (b) **Pretrial Practice**. Ernie Lewis; (c) **Preparing Self**. (1:00) P. Donley; (d) **Drug Analysis**. (1:15) J. Benton [1986].

♦ V-241 (a) **Preliminary Hearings**. (1:00) Frank Haddad; (b) **Alcohol and Drugs in Perspective**. (1:00) R. Miller; (c) **Negotiation**. (1:30) Vince Aprile, P. Cramer [1987].

♦ V-277 (a) **Creative Criminal Defense**. (b) **Defending Drug Cases**. G. Goldstein [1989].

♦ V-288 **Voir Dire in Drug Cases**. J. Johnson [1990].

♦ V-293 **Evidentiary Issues in Drug Cases -- Ethics**. J. David Niehaus, Vince Aprile [1990].

♦1 V-333 (a) **Challenging Physical Evidence of Sexual Assault or Abuse, and Parole Board Response to Sex Offenders**. (1:27) W. Robert Lotz, John Runda; (b) **Defending Drug Cases**. (0:56) Martin Pinales

♦ V-364 **Drugs of Abuse: Detection and Pharmacokinetics**. Sam Morris

♦ V-367 (a) **Substance Abusing Clients**. Robert Walker; (b) **Hearsay and Hearsay Exceptions, Especially in Sex Abuse Cases under the New Evidence Code**. William Fortune.

♦ V-543 **Voir Dire in Sexual Abuse Cases, Drug Cases, Cases with No Defense, and on Special Issues of Race, Defendant with Record, Aggravating Evidence**. Robert D. Hirschhorn.

DPA TRAINING HANDOUTS: Alcohol and Other Drugs in Perspective: The Criminal Justice Connection (10 p.).

♦ **Defending a Drug Case** (36 p.; 1991) -- Martin S. Pinales.

♦ **Evidentiary Issues in Drug Cases** (15 p.; 1990)--J. David Niehaus.

♦ **An Inside Look** [play presented by Frankfort Career Development Center, relating to drug use] (34 p.; 1987) -- Carlton Doran.

♦ **Sample Voir Dire of Chemists in a Drug Case** (82 p.; 1977)--James M. Shellow.

OTHER PRINT RESOURCES: Further information about drugs and drug law can be found in smaller sections of other books throughout the library, especially our books on forensic science.

REFERENCE SERVICE: The librarian is available to provide other drug-related information, such as availability of journals and articles, bibliographic assistance, and interlibrary loan.

INTERNET RESOURCES: The Internet (accessible here through Gopher and Lynx) contains an undefinable amount of information and may be worth searching, depending on your topic. For assistance, or to have a search performed, contact the librarian with the subjects you are interested in.

WESTLAW RESOURCES: In addition to texts from the courts, Westlaw offers searching and full-text retrieval in databases such as *FDA Enforcement Reports*, *Drug Topics*, *Drug Information Fulltext*, *Merck Index Online*, *Registry of Toxic Effects of Chemical Substances*, and *Unlisted Drugs*. Contact the librarian for assistance or further information about these databases.

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Drug Evidence and Scientific Testimony:
Rigorous Advocacy Put to the Test

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One of the most challenging tasks confronting a trial attorney is the cross examination of a scientific expert. Many lawyers are comfortable with the rules of evidence and the art of summation, but few maintain that same level of confidence during the cross examination of a witness who is well versed in a highly technical field.

The problem is compounded by the fact that the courts themselves are woefully slow in keeping up with advances in the scientific community. Judges, like lawyers, too often confer upon expert testimony an aura of infallibility.

They fail to critically examine the technologies applied by experts or the analytical methods they use. In order to truly maintain a fair and credible judicial system, courts must be in position to recognize and understand accepted and validated scientific methods. Only then will they be able to identify and challenge questionable scientific claims.

The identification and analysis of substances introduced as evidence in court is what experts call "chemoforensics."

Simply put, "chemoforensics" is the application of knowledge, methods and procedures from the field of chemistry to the identification and quantification of substances used as evidence. This includes, for example, the chemical analysis of burned matter, pollutants, soil, poisons, hair, semen, blood and saliva, as well as controlled substances. The paragraphs which follow will explore specifically the area of controlled substances.

Conditions for Proper Drug Identification

The identification of controlled substances is generally made using validated methods that have been accepted by the FBI, DEA, EPA, and FDA, as well as pharmaceutical companies, private laboratories, and by some police labs. Surprisingly, many police laboratories fail to use these validated methods and rely instead on procedures and methods of substance analysis which are suspect and imprecise.

A review of the most authoritative and widely used texts on this subject reveals six standards that must be met to establish a scientifically validated result. They are as follows:

1. A separation technique must be performed on the targeted substance before any identification is attempted.

2. The method of identification must be objective, not dependent on the subjective impressions or intuitions of the analyst.

3. The identification must be performed in conjunction with a reference standard for comparison purposes (a reference standard is a pure certified sample of the substance sought, *e.g.* pure cocaine crystals).

4. The methods and applied procedures must be validated (a validated method is one accepted by the scientific community after collective experimentation and publication).

5. The analyst must produce a recording of his or her performance of the test. This may take the form of an instrumental chart, photograph or other document. The evidence may thus be examined by the triers of the facts or the expert witness.

6. The analyst must be proficient in the use of the necessary instruments and have an understanding of the composition and physicochemical properties of the analyzed substance. In addition, the chemist must have the requisite education and training to interpret the test results.

Disturbingly, we have found that a significant number of the test results submitted by a prominent laboratory in New York City consis-

tently fail to meet any of these important criteria. It is not unlikely that there are laboratories which use invalid and misleading tests for examining controlled substances in your community. As an advocate, you need to be in position to impeach the testimony of an expert witness who describes the outcome of a substance analysis which clearly does not conform to widely accepted procedures. In order to effectively impeach chemoforensic testimony, you must acquire a basic understanding of the testing procedures which produce valid results, as well as those which commonly lead to inconclusive or erroneous findings.

Color and Microcrystal Tests

Virtually every criminal attorney practicing in New York City is familiar with the use of color and microcrystalline tests. The chemist or technician who performs these tests is frequently called upon as an expert witness. In court, these witnesses are often unable to respond on cross examination to queries concerning the adequacy of the testing procedures. If asked about the separation of the targeted drug before testing, the use of a reference standard or the lack of specificity or objectivity, many witnesses testify that "the separation is not necessary' or "there is no need for a reference standard.

Incredibly. a chemist may also claim that she or he *memorizes all the colors for every performed test and substance*, and that instruments for an objective analysis are expensive and not necessary. If pressed about the presumptive and tentative e character of color tests and about the incompleteness of the microcrystalline tests performed without a polarizing microscope, we have encountered numerous technicians who will claim that "it's not necessary."

Without a reference standard, and without any determination of the physical properties of the crystals. the technician will usually note that the performed tests confirmed each other therein supporting the certitude of the identification.

There is overwhelming evidence in the scientific community which flies in the face of these responses. However, the continuing naivete on the part of judges and advocates where scientific evidence is concerned enables these practices to continue and the results of these tests are presented as expert testimony in courtrooms throughout the country. We are gully of accepting the myth of "expert testimony." In the case of drug identification, we are asked to accept that

1) expert witnesses frequently cannot explain the relationship between the structure of the identified drug (cocaine heroin. LSD, marijuana) and the result of a color test;

2) a typical chemist memorizes the colors in a color test and upon seeing the color effect of a drop of reagent on the unprepared sample, can immediately differentiate a positive from a negative; and

3) a chemist who performs tens of thousands of identification tests each year is exempt from error and may substitute personal impressions for scientific proof.

Both color and microcrystalline tests are presumptive in nature and are intended to be used solely for screening purposes. Furthermore, they are not performed in conformity with scientifically admissible and accepted methods and procedures.

A color test is performed by pouring drops of reagent on the substance to be identified. The color produced by the reaction between the "unknown" substance and the reagent is not specific, that is, it does not correspond uniquely to the substance to be identified.

One feature (from many others) of - the molecule and the principal component of the reactant (substance to be identified) interacts with a feature of the molecule of the principal component of the reagent producing the characteristic feature of a colored substance. The feature of the reactant (such as conjugate double bonds, special groups of atoms, etc.) is called chromophore, and the feature of the reagent is called chromogen.

The color tests for drugs developed in the preinstrumental period of chemical analysis, produce the same colors from different substances containing the same chromophore This means that the same result can be obtained from hundreds of different substances. The Cobalt Thiocyanate Test which is designed to detect cocaine and heroin may in fact reveal the presence of demerol and a variety of other

non-controlled drugs. Similarly, a positive result on a Duque-nois-Levine Test (used to detect cannabinoids) may be obtained when using sample of *Advil* or *Nuprin*.

Some reagents (Mandelin, Froehde, Vitali Lieberman. Van Urk, Mecke) contain strong inorganic acids (sulfuric, nitric, chlorhydric) which destroy the molecule of the substance to be tested This explains why such a variety of substances yields the same result Adding to this uncertainty is the fact that many laboratories fail to separate the target substance from its mixture of adulterants, contaminants, and diluents which carbonize or give colors of their own when reacting with the reagent.

Street drugs contain usually 2%-10% of a controlled drug. Adulterants are ingredients added to the drug to make it cheaper and to deceive the consumer. Diluents are typically inactive ingredients added to reduce the initial concentration of the drug. Contaminants and impurities are substances other than the controlled drug, which result as by-products in the process of fabrication or as residues from incomplete extraction or separation. Excipients are inert substances added to a drug, usually in pill form, to give it a specific consistency or resistance to humidity, changes of temperature, micro-organisms, etc.

Chemists performing color tests rarely use a reference standard to compare their results, such as the NIST (National Institute of Standards and Technology), Standard Centroid Color Charts (Standard #2106, publication 260, Winter 1992). Tests infrequently conform with "NIJ (National Institute of Justice) *Standard for Color Tests Reagents/Kits Preliminary Identification of Drugs of Abuse.*"

In light of these findings, many criminal law experts have concluded that color tests are clearly unreliable and should not be admissible in a drug case.

Expert witnesses may testify that the results of multiple color tests corroborate the validity of the results obtained. Given the likelihood of error in performing these tests, additional color tests only add to the confusion in the courtroom.

In the *Analytic Manual* published by the Department of Justice in 1975. Authors Stanley Sobol and Richard A. Moore write "Many chemists. especially in ill-equipped laboratories, are fond of color tests...heroin turns purple in the presence of Marquis reagent, purple to green with Froehde reagent, and yellow with nitric acid. You will find however, that the Marquis reagent will also turn purple with Ibogaine, MDA. Codeine (red violet to blue violet), and Oxicodone... No one knows how many of the one or two million uncontrolled organic substances turn purple."

In his renown work, Isolation and *Identification of Drugs*, author E.G.C. Clarke added his persuasive voice to those questioning the validity of color tests: "It must be realized however, that many organic compounds will give similar results to these tests... It should be noted that many compounds give various shades of yellow, orange, and brown which are of little diagnostic value."

To confer supplementary "scientific" credibility to their findings, many chemists called upon as expert witnesses perform microcrystalline tests in addition to color tests. The validity of the former testing procedure is the subject of serious dispute. Experts such as Clarke, Sobol and Moore regarded microcrystalline tests as obsolete and "not specific" as early as 1975. Clarke wrote further about the test describing its real value as "a means of final identification to confirm a provisional diagnosis made from the chromatographic or spectrophotometric evidence."

Validated Methods

It is important to dispel the notion that reliable methods of drug identification are expensive, time-consuming or out-of-reach for modest laboratories.

Virtually every analytical laboratory in this country is equipped with thin layer chromatography plates, solvents, and reagents for Thin Layer Chromatography, I Ultraviolet Spectrophotometers, Infrared Spectrophotometers, and Gas-Chromatographs. Better equipped laboratories have High Pressure Liquid Chromatographs, Mass-Spectrometers connected to Gas-Chromatographs, X-ray Analyzers, electronic microscopes and other specialized analytical instruments.

More sophisticated laboratories also use computers to process chromatographic and spectrometric information. Computers enable the storage of test results, communication with libraries of spectra and the creation of individual libraries of spectra.

Thin layer chromatography equipment, a gas chromatograph and an infrared spectrometer are the primary equipment necessary to undertake a reliable identification of a controlled drug in a mixture. A high degree of certainty can be achieved with these tools when the tests are performed in accordance with the six criteria described previously.

Prosecutors, defense lawyers and judges must possess at least a rudimentary understanding of the valid methods of identifying controlled substances. Without such knowledge, we will consistently fail to impeach chemoforensic testimony based on faulty testing procedures. More importantly, jurors and judges will be unable to evaluate the veracity of expert testimony and give such evidence the weight it deserves in the factfinding process.

Chromatography

The chromatographic analytical methods, namely: *Thin Layer Chromatography* (TLC), *Gas-Chromatography* (GC), and *High Performance Liquid Chromatography* (HPLC), all perform both the separation of the targeted substance from its mixture and the tentative identification of the targeted drug.

For a TLC test, the sample is dissolved in a solvent. A small drop of a dilute solution of the sample is placed close to one end of the absorbent layer coating the TLC plate. Drops of reference standard solution are also placed in line with the sample or samples.

The plate with its spots of samples and reference standard is placed into a tank containing the mixture of solvents forming the mobile phase (or eluent).

The front of the eluent moves along the plate The components of the sample are transported by the eluent, each of them with a speed of its own.

When the eluent front, clearly visible as the line separating the wet part of the plate from the dry, is 2 to 3 centimeters below the upper end of the plate, the plate is dried. We may now observe the dried plate under ultraviolet light and spray it with a series of reagent solutions. This is developing the chromatogram.

One compares the spots originating from the sample with the spots produced by the reference standard on the plate. The separated components are identified by their retention factor (Rf), which is the ratio between the displacement of the component and the displacement of the eluent front. (Example: displacement of the eluent front, 16 cm and displacement of the considered component, 12 cm; the Rf of this component = 12/16 = 0.75).

Suppose that cocaine is our targeted drug and, therefore, the reference standard solution contains cocaine. If one of the components of the sample has the same retention factor as the cocaine in the reference standard solution, the same appearance under UVlight and the same color when sprayed with the same reagent, we may reach the conclusion that the sample contains cocaine. To reinforce and confirm the presence of cocaine, an infrared absorption test should be performed.

Absorption Spectrophotometry

Absorption spectrophotometry is a group of analytical methods based on the interaction between molecules and electromagnetic radiation (ultra-violet light, visible light, infrared radiation, microwave radiation). The infrared absorption spectrophotometry offers extensive information on the structure and composition of molecules.

The IR radiation source can be an incandescent bar of silicon carbide or a tungsten lamp. A grating monochromator disperses the IR radiation letting out fractions of IR radiation of increasing wavelengths.

The IR radiation of successive wavelengths reaches the solid substance of the sample (embedded in the IR transparent potassium iodide powder) and passing through the sample leaves part of its energy absorbed by molecules in the sample.

Every substance will produce its own spectrogram with a very high degree of specificity. The infrared spectrogram is a "fingerprint" of

a specific molecule. Comparing the obtained spectrogram with the infrared spectrogram of the reference standard (obtained in the same operational conditions), and with published spectrograms of the drug to be identified, one can be sure about the presence (or absence) of the targeted drug in the sample. This is valid for cocaine, heroin, LSD, amphetamines, and any other drug from the five schedules of controlled substances.

Another tandem system for separation with tentative identification I followed by unequivocal confirmation of the identity of the substance is *Gas Chromatography with Mass Spectrometry*.

Gas Chromatography

Like all chromatographic systems, a gas chromatograph permits the separation of different substances in a mixture and the tentative identification of the separated substances by their specific retention time The specific delay for every type of molecule is determined by the interaction between the stationary phase and the substances in the mixture.

Detectors of different types emit signals when the separated substances of the mixture reach them The signals feed a recorder, on each a chromatogram appears, each substance having its representative peak on the chromatogram.

Examination of the recorded charts obtained with and without addition of a reference standard permits a definitive negative answer (if a peak of the targeted drug is missing from the chromatogram of the sample) or strong indication that the targeted drug is present if the characteristic peak is on the chromatogram of the sample.

Mass Spectrometry

For an absolute confirmation of the identification, the gas chromatograph must be connected to a mass spectrometer. A mass spectrometer fragments and ionizes the molecule of the substance arriving from the gas chromatograph. The ionization and fracturing of the molecule is produced by a bombardment with electrons generated by a heated tungsten or rhenium filament, or by collision with gas ions. The electrically charged fragments of a molecule are directed and accelerated electrically towards a mass analyzer which separates the ions, according to their mass-to-charge ratio.

The separation of ions is realized by a magnetic field or with the help of high frequency fields. The separated and focused ions are detected as electrical currents. amplified, and recorded as a a mass spectrogram.

Mass spectrometers are equipped with powerful vacuum pumps to prevent collisions between the ionized fragments of the analyzed substance and the molecules of nitrogen and oxygen from the air.

A special interface device connects the gas chromatograph (which operates at normal atmospheric pressure) with the mass spectrometer.

A mass spectrogram of a chromatographic separated drug can be compared with published mass spectrograms of drugs and with the spectrogram of a reference standard obtained with the same instrument in the same operational conditions. Such comparison offers an unequivocal response about the absence (or presence) of the targeted drug.

A mass spectrogram is a signature of the involved molecule. The only possible similar result is given by substances with the same composition, same molecular weight, same chemical bonds but which differ in their optical activity.

The separation and identification methods discussed above are excellent tools to use in cases of controlled substance offenses.

Other methods of even larger domain of application, suitable for street drugs, mixtures identification, and for toxicological applications, and also for adulteration of drug cases, poisoning, and other forensic applications include *High Performance Liquid Chromatography* (HPLC), by itself or combined with infrared spectrophotometry or with mass spectrometry, and a series of chemo-immunological methods.

High Performance Liquid Chromatography

Like all other chromatographic methods, HPLC is based on the interaction between the sub-

stances in the sample, carried by a mobile phase and a stationary phase.

Reference standards for street drugs and for adulterants for use with HPLC are offered by suppliers of HPLC instruments and materials. Comparing the chromatogram of a reference standard with the chromatogram of the sample provides powerful proof of the presence or absence of a targeted drug in the sample. When the collected fraction of the targeted drug is further tested with an infrared spectrophotometer or with a mass spectrometer, the proof becomes unequivocal.

The validation process of analytical methods is regulated by procedures adopted by USP, AOAC (Association of Official Analytical Chemists), and other scientific associations.

The guidelines prescribe a minimum number of laboratories and replicate results, the obligation to differentiate screening methods from others, conditions of collaboration, editing, and more.

Conclusions

Some police laboratories rely primarily on color and microcrystalline tests for the identification of drugs. These methods were never intended to be used in such a manner, and they fail to satisfy any of the six criteria for a valid scientific test discussed at the outset of this article.

Many laboratories are able to continue such questionable practices because jurists and attorneys have failed to acquaint themselves with even a rudimentary knowledge of the principles of drug identification. Yet such an understanding is essential in order that jurors may be assisted in their job of critically evaluating expert testimony and reports.

It is time for the legal profession to apprise itself of the developments of the scientific community Expertise, instead of being regarded ofinfallible, must be subjected to strict scrutiny using the scientifically accepted principles of substance identification. Only when this is accomplished will our criminal justice system achieve credibility in this area. - A first meaningful step should be to demand that laboratories (including police labs) use validated methods for the separation and identification of drugs. Most labs presently possess all the necessary equipment to achieve scientifically validated results. We must compel them to take the time to produce real evidence based on scientific principles, rather than conjecture protected by the aura of expertise. Justice demands nothing less.

The authors of this article James J. Martorano, Supervising Attorney at The Legal Aid Society, Criminal Defense Division in New York City, and Analytical Chemist, Dr. Max Solomon.

KENTUCKY DEATH NOTES

Number of people executed since statehood *1795-1963*	470
Number of people executed in the electric chair *1911-1963*	171
Number of people who applied for the position of executioner *1984*	150
Number of people now on death row *December 1995*	27
Number of people who are Viet Nam veterans on death row *December 1995*	0
Number of people who are women on death row *December 1995*	0
Number of people who were juveniles when the crime was committed *1976-present*	1
Number of people who have committed suicide on death row *1976-1995*	1
Number of people whose trial lawyers have been disbarred or had their license suspended	3
Number of people on death row who can afford private counsel on appeal	1
Number of people sentenced to death for killing a black person *1976-1995*	0
Percentage of death row inmates who are black *1976-1995*	25%
Percentage of Kentucky population that is black	7%
Number of black prisoners who were sentenced by all white juries *1976-1995*	3
Number of persons sentenced to death in Kentucky who were later proven innocent	1

The Laughable Drug Courier Profile

The following is a dissent in ***United States v. Hooper****, 935 F.2d 484, 499 (2d Cir. 1991).*

GEORGE C. PRATT, Circuit Judge, dissenting:

"When *I* use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean -- neither more nor less."

"The question is," said Alice, "whether you *can* make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master -- that's all." L. Carroll, *Alice Through the Looking-Glass* (1872).

This case presents another example of the erosion of our constitutional protections resulting from this country's wasteful, ineffective, self-destructive efforts to stop drug trafficking. Because I believe that the majority's holding now allows government agents to seize virtually any air traveller's luggage while they make an investigation, I dissent.

To justify their seizure of Hooper's bag the agents testified he had come from a "source city" and fit the DEA's "drug courier profile." Yet the government conceded at oral argument that a "source city" for drug traffic was virtually any city with a major airport, a concession that was met with deserved laughter in the courtroom. The "drug courier profile" is similarly laughable, because it is so fluid that it can be used to justify designating anyone a potential drug courier if the DEA agents so choose. "The [DEA] has not committed the profile to writing" and "the combination of factors looked for varies among agents." *United States v. Taylor*, 917 F.2d 1402, 1407 n. 8 (6th Cir. 1990), *vacated*, 925 F.2d 990 (6th Cir. 1991). Moreover, a canvass of numerous cases reveals the drug courier profile's "chameleon-like way of adapting to any particular set of observations." *United States v. Sokolow*, 831 F.2d 1413, 1418 (9th Cir.1987), *rev'd*, 490 U.S. 1, 109 S.Ct. 1581, 104 L.Ed.2d 1 (1989):

Arrived late at night *United States v. Nurse*, 916 F.2d 20, 24 (D.C.Cir.1990).

Arrived early in the morning *United States v. Reid*, 448 U.S. 438, 441, 100 S.Ct. 2752, 2754, 65 L.Ed.2d 890 (1980); *United States v. Millan*, 912 F.2d 1014, 1017 (8th Cir.1990).

One of first to deplane *United States v. Millan*, 912 F.2d at 1015, *United States v. Moore*, 675 F.2d 802, 803 (6th Cir. 1982), *cert. denied*, 460 U.S. 1068, 103 S.Ct. 1521, 76 L.Ed.2d 945 (1983).

One of last to deplane *United States v. Mendenhall*, 446 U.S. 544, 547 n. 1, 100 S.Ct. 1870, 1873 n. 1, 64 L.Ed.2d 497 (1980); *United States v. Sterling*, 909 F.2d 1078, 1079 (7th Cir.1990); *United States v. White*, 890 F.2d 1413, 1414 (8th Cir.1989), *cert. denied*, 498 U.S. 825, 111 S.Ct. 77, 112 L.Ed.2d 50 (1990).

Deplaned in the middle *United States v. Buenaventura-Ariza*, 615 F.2d 29, 31 (2d Cir.1980).

Used a one-way ticket *United States v. Johnson*, 910 F.2d 1506 (7th Cir.1990), *cert. denied*, 498 U.S. 1051, 111 S.Ct. 764, 112 L.Ed.2d 783 (1991); *United States v. Colyer*, 878 F.2d 469, 471 (D.C. Cir. 1989); *United States v. Sullivan*, 625 F.2d 9, 12 (4th Cir. 1980).

Used a round-trip ticket *United States v. Craemer*, 555 F.2d 594, 595 (6th Cir. 1977).

Carried brand-new luggage *United States v. Taylor*, 917 F.2d at 1403; *United States v. Sullivan*, 625 F.2d at 12.

Carried a small gym bag *United States v. Sanford*, 658 F.2d 342, 343 (5th Cir.1981), *cert. denied*, 455 U.S. 991 (1982).

Travelled alone *United States v. White*, 890 F.2d at 1415; *United States v. Smith*, 574 F.2d 882, 883 (6th Cir.1978).

Travelled with a companion *United States v. Garcia*, 905 F.2d 557, 5.59 (1st Cir.), *cert. denied*, 498 U.S. 986, 111 S.Ct. 522, 112 L.Ed.2d 533 (1990); *United States v. Fry*, 622 F.2d 1218, 1219 (5th Cir.1980).

Acted too nervous *United States v. Montilla*, 928 F.2d 583, 58a (2d Cir.1991); *United States v. Cooke*, 915 F.2d 250, 251 (6th Cir.1990).

Acted too calm *United States v. McKines*, 933 F.2d 1412 (8th Cir.1991); *United States v. Himmelwright*, 551 F.2d 991, 992 (5th Cir.), *cert. denied*, 434 U.S. 902. 98 S.Ct. 298, 54 L.Ed.2d 189 (1977).

Wore expensive clothing and gold jewelry *United States v. Chambers*, 918 F.2d 1455, 1462 (9th Cir. 1990).

Dressed in black corduroys, white pullover shirt, loafers without socks *United States v. McKines, supra.*

Dressed in dark slacks, work shirt, and hat *United States v. Taylor*, 917 F.2d at 1403.

Dressed in brown leather aviator jacket, gold chain, hair down to shoulders *United States v. Millan*, 912 F.2d at 1015.

Dressed in loose-fitting sweatshirt and denim jacket *United States v. Flowers*, 909 F.2d 145, 146 (6th Cir.1990).

Walked rapidly through airport *United States v. Millan*, 912 F.2d at 1017; *United States v. Rose*, 889 F.2d 1490, 1491 (6th Cir.1989).

Walked aimlessly through airport *United States v. Gomez-Norena*, 908 F.2d 497, 497 (9th Cir.1990), *cert. denied*, 498 U.S. 947, 111 S.Ct 363, 112 L.Ed.2d 326 (1991).

Flew in to Washmgton National Airport *on the LaGuardia* Shuttle *United States v. Powell*, 886 F.2d 81, 82 (4th Cir.1989), *cert. denied*, 493 U.S. 1084, 110 S.Ct. 1144, 107 L.Ed.2d 1049 (1990).

Had a white handkerchief in his hand *United States v. Garcia*, 848 F.2d 58, 59 (4th Cir.), *cert. denied*, 488 U.S. 957, 109 S.Ct. 395, 102 L.Ed.2d 384 (1988).

In our "Looking-Glass" world of drug enforcement, the DEA apparently seeks "to be master" by having "drug courier profile" mean, like a word means to Humpty Dumpty, "just what I choose it to mean -- neither more nor less."

But even assuming that the "source city" and "drug courier profile" elements gave the agents some level of suspicion, the facts of this case do not permit the conclusion that the DEA agents had a reasonable suspicion, let alone probable cause, to detain Hooper's suitcase. Neither *Terry v. Ohio*, 392 U.S. 1, 88 S.Ct. 1868, 20 L.Ed.2d 889 (1968), nor *United States v. Place*, 462 U.S. 696, 103 S.Ct. 2637, 77 L.Ed.2d 110 (1983), countenance the extensive intrusion on privacy rights that occurred here. In *Terry* the Court approved a pat-down investigation based on less than probable cause, because they were dealing with the need for "necessarily swift action predicated upon the on-the-spot observations of the officer on the beat." *Terry*, 392 U.S. at 20, 88 S.Ct. at 1879. The *Place* Court said a canine sniff could be based on less than probable cause because the sniff--"*sui generis*" according to the Court -- "is much less intrusive than a typical search." *Place*, 462 U.S. at 707, 103 S.Ct. at 2544.

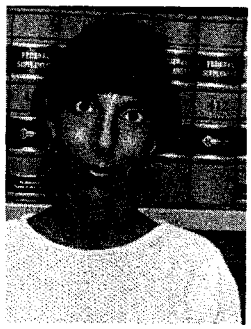
The point of *Place* is that *Terry* may be extended to allow something specific and quick, like a sniffing dog, that will either confirm or dispel the "reasonable suspicion"; it was surely not meant to allow government agents to "buy time" in order to develop probable cause. Here, the only reason advanced by the agents for detaining the luggage was that they needed time to obtain a search warrant, even though they admittedly lacked probable cause at that point to do so. There is no evidence of any plan to undertake "swift action or to adopt a "less intrusive" means of satisfying their curiosity. I fear the majority's extension of *Terry* and *Place* now allows government agents to make seizures based on "reasonable suspicion" so that they can, indeed, buy time to develop probable cause later.

This is yet another example of the aggressive tactics recently employed by federal law enforcement officials in the Buffalo area, which are well chronicled in our cases. *See, e.g., United States v. Montilla*, 928 F.2d 583 (2d Cir.1991); *United States v. $37,780 in Currency*, 920 F.2d 159 (2d Cir.1990); *United*

States v. Lee, 916 F.2d 814 (2d Cir.1990); *United States v. $359 500 in Currency*, 828 F.2d 930 (2d Cir.1987). Sadly, no improvement yet appears on the horizon, and this decision, like those cited above, may simply encourage even more intrusive governmental conduct there and elsewhere.

During the suppression hearing, agents Gerace and Allman testified that they spend their days approaching potential drug suspects at the Greater Buffalo International Airport. According to their own testimony, they detained 600 suspects in 1989, yet their hunches that year resulted in only ten arrests. It appears that they have sacrificed the fourth amendment by detaining 590 innocent people in order to arrest ten who are not -- all in the name of the "war on drugs." When, pray tell, will it end? Where are we going?

West's Review



Julie Namkin

Commonwealth v. Black,
Ky. S.Ct., 94-SC-287, 10/19/95

The defendant was indicted for wanton endangerment and terroristic threatening. The Court held it was error for the trial court to have directed a verdict on the terroristic threatening count at the close of the guilt phase, on the ground that it merged into the wanton endangerment count, and to have only submitted the wanton endangerment count to the jury. Since terroristic threatening is a lesser included offense of wanton endangerment, based on the facts of this case, a reasonable juror could have found the defendant guilty of terroristic threatening and not guilty of wanton endangerment.

Violett v. Commonwealth,
Ky. S.Ct., 93-SC-806, 10/19/95

The defendant was tried in one indictment with five counts of rape of his daughter and in a second indictment with one count of sodomy upon one of his stepdaughters occurring once a week over a six and one half year period. Affirming the defendant's convictions for five counts of rape and 157 counts of sexual abuse, the Court held: 1) the trial court did not an abuse its discretion in joining the two indictments for trial because each indictment involved similar conduct; 2) the defendant was not denied his right to present his defense by the trial court's failure to permit the defendant to introduce a letter written by one of the victims to her boyfriend; 3) it was not error for the trial court to fail to require the Commonwealth to file a more complete bill of particulars; 4) where the defendant's first trial was aborted by a mistrial, it was not error for the to show the videotape of the first trial to the new jury trying the case where all parties agreed to this procedure; 5) the defendant's sentence of 754 years was not improperly calculated because there is no upper limit on the term of years for a Class A felony.

Savage v. Commonwealth,
Ky. S.Ct., 94-SC-752-MR, 10/19/95

The defendant was tried and convicted of first degree robbery. On appeal the Court held that where the defendant was found in possession of $842.00 in cash and $122.00 in food stamps, it was not error for the trial court to fail to instruct the jury on receiving stolen property less than $300.00. The court did instruct the jury on receiving stolen property over $300.00. The Court also held the trial court did not err in allowing evidence of an out-of-court show up identification of the defendant made within thirty minutes of the robbery as well as an in court identification of the defendant by the store clerks, even though the store clerks did not make a positive identification of the defendant at the show-up but merely said the individual shared characteristics with the defendant.

Frank v. Commonwealth,
Ky. S.Ct., 95-SC-180-TG, 10/19/95

The defendant was convicted of second degree burglary, theft by unlawful taking, and being a first degree persistent felony offender. On appeal, the Court held: 1) it was not error for the trial court to make the defendant give his fingerprints in court during trial where the defendant denied that the fingerprints taken from the burglary scene were his; 2) the admission of hearsay testimony by a police officer was not error where the defendant cross-examined the officer about the hearsay evidence and the Commonwealth identified the out-of-court declarant on redirect; 3) it was not error for the Commonwealth to place before the jury testimony inferring the defendant had been convicted of another crime where the defense first presented the evidence that was the basis for the inference.

Commonwealth v. Durham,
Ky. S.Ct., 94-SC-942-DG, 10/19/95

Reversing an opinion by the Court of Appeals,

the Court held that the maximum aggregate sentence for a second degree persistent felony offender convicted of multiple Class D felonies is twenty, not ten, years. KRS 532.080(6)(b) controls, not KRS 532.080(5).

Hawley v. Commonwealth,
Ky. App., 94-CA-2302-MR, 10/20/95

The defendant violated the terms of his probation and the trial court temporarily revoked his probation and had him serve thirty days in jail. The defendant's original period of probation was tolled during this thirty day period so the defendant was still on probation when he was released from jail at the end of the thirty day period. When the defendant again violated his probation it could be revoked and he could be ordered to serve his original sentence.

Terhune v. Commonwealth,
Ky.App., 94-CA-001046-MR, 10/13/95

The defendant pleaded guilty to numerous counts in an indictment and was sentenced to thirteen years. Six months later the defendant pleaded guilty to numerous charges in a different indictment and was sentenced to ten years to run consecutively to the thirteen years. The defendant's motion for shock probation on his sentence under the first indictment was denied and the defendant moved for shock probation on his sentence under the second indictment. The trial court denied this second motion as premature because the defendant had not yet begun to serve his ten year sentence since it was to be served consecutively to the previous thirteen year sentence. The Court of Appeals held the trial court erred and remanded the case with directions to the trial court to consider the defendant's motion for shock probation.

Commonwealth v. Bailey,
Ky. App., 94-CA-2449-MR, 10/13/95

The defendant was indicted in January 1992. He was not arraigned until April, 1992, because he fled the state. A June 1994 trial resulted in a mistrial. In September 1994, the defendant moved to dismiss the indictment because he had been denied his right to a speedy trial. After a hearing, the trial court dismissed the indictment. The Court of Appeals held the trial court erred when it dismissed the indictment because all of the delays during the thirty-one months between indictment and trial were attributable to the defendant's conduct and his refusal to cooperate with his counsel.

Jones v. Commonwealth,
Ky. App., 94-CA-001441-MR, 10/13/95

For purposes of establishing the defendant's status as a persistent felony offender, testimony as to the defendant's birth date taken from a pre-sentencing report was not hearsay and was admissible under the reasoning of *Garner v. Commonwealth*, Ky., 645 S.W.2d 705 (1983), as well as under KRE 803(6) [records of regularly conducted activity], where the defendant never disputed the date as being his actual date of birth.

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How Are Decisions Made?

It is still the mystery of the appellate process that a result is reached in an opinion on thoroughly logical and precedential grounds while it was first approached as the right and fair thing to do.

- Circuit Judge Gurfein, 2d Circuit

Karl Popper, *Objective Knowledge: An Evolutionary Approach* (1972), Oxford Univ. Press p. 7.

Anectdotal Evidence

Beginning with this issue, I will attempt a new column, the purpose of which will be to allow the trial attorney to exercise their on-the-spot judgment, and to address the myriad novel trial situations enountered by the new trial attorney. Try covering the answers and testing your instincts. If you have an odd trial situation you'd like addressed in this column, feel free to call or write.

SCENARIO ONE: In a PFO hearing, the Commonwealth calls Joe, the Commonwealth's Detective. Joe testifies he received records from Arkansas that indicate defendant was convicted of a felony. The records are certified by some clerk in Arkansas. Although Joe has no knowledge of the matter, since he never visited Arkansas, and simply reads the documents into evidence that he received from Arkansas. What do you say?

ANSWER: Objection: Insufficient evidence of prior conviction. These are some of the facts of *Commonwealth v. Davis*, 3/23/95, 93-SC-855-MR. The court reversed on insufficiency grounds this evidence of prior conviction, since:

The documents offered were not self-authenticating under KRS 422.040 (if dealing with records from another state, clerk's attestation, with a court seal, and certified by the presiding judge of the court required before full faith and credit are to be given to the records),

The witness had no first hand knowledge of the substance of the records, as did the witness in *Commonwealth v. Mixon*, 827 S.W.2d 689, 690 (Ky. 1992), and

Joe did not present certified copies of the judgment and the sentence, as did the witness in *Jackson v. Commonwealth*, 703 S.W.2d 883 (Ky. 1986).

SCENARIO TWO: You're overruled. Joe continues, stating that the records indicate defendant was released from the Arkansas State Prison in 1991. The Commonwealth then concludes its proof. What do you say?

ANSWER: Objection: no proof of defendant's status. This is also part of *Davis* opinion. PFO requires proof that the defendant was on parole, probation, or other supervisory release within five years of the new offense. Joe had no first hand knowledge of defendant's probationary status, and we do not know whether the defendant served out, was released on a habeas writ, got his case overturned on insufficiency grounds, or was simply released on parole.

SCENARIO THREE: A warrant exists for Elliston. Police have a warrant and a physical description of Elliston. Police have information that he's present in the city, at an apartment. They go there, and are told that Elliston is not present, and took a ride with a friend in a brown Nova. One officer stays at the apartment, in case Elliston returns. Another drives in the direction of the Nova, and spots a brown Nova after about ten minutes, and also see a head "pop" up from the back seat and vanish from view. Police stop the car, and ask the driver, your client, Venham, for his licence. Venham asks why, and the officer says they're looking for Elliston. The driver says he got out at the Convenient store down the road. Police check the licence and discover its suspended. What do you do?

ANSWER: Move to suppress, which may well be granted as the scope of the *Terry* stop is defined by the officer's purpose: looking for Elliston. Once police discover Elliston is not there, that should end the inquiry, and the driver should be free to go. This is based on *State v. Venham*, 96 Ohio App.3d 649 (Ohio Ct. App. 1994), which suppressed the evidence of Venham's licence suspension under these facts.

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Public Defender Salaries

Salary equity between attorneys with the Department of Public Advocacy and the Office of the Attorney General has been achieved after four years.

The minimum starting salaries for the various Kentucky public defender classifications were raised to the current levels on November 16, 1995. Now, for the first time since March 15, 1991, the minimum beginning salaries for Kentucky attorneys working in the public defender offices are equal to that paid to their counterparts with the Kentucky Attorney General's office. The November increases were:

CLASS	FROM	TO
Asst. Public Advocate	$21,600	$23,388
Asst. Public Advocate Sr	26,292	32,344
Asst. Public Advocate Pr	31,944	34,560
Asst. Public Advocate Ch	35,220	36,984
Asst. Public Advocate Sv	35,220	36,984
Asst. Public Advocate Mgr	38,832	40,776

To achieve this equity the Department was obligated to pay for such an expenditure with existing agency funds accumulated via recently enacted legislation authorizing a public defender user fee and an increase in the DUI service fee which is designated for the Department.

Side Effects of Salary Inequity

The vast difference in salaries between attorneys working for the Attorney General versus those working as public defenders has had an adverse affect on the Department's turnover rate. In FY 90 the Department's turnover rate among attorneys was approximately 9%. During the period when there was a discernible difference in salaries between the Attorney General's office and DPA, the turnover rate increased dramatically. In fact, the average for this period was approximately 16%. It is the sincere belief of DPA administrators that equitable salaries will reduce turnover among attorneys thereby improving the efficiency and effectiveness of the public defender system and the criminal justice system.

Salaries for Judicial Attorneys

Recent law school graduates working for Circuit Court judges in the Commonwealth earn a beginning salary of $19,200 prior to gaining status as a licensed attorney. Staff attorneys with the Kentucky Supreme Court and the Court of Appeals earn a minimum annual salary of $26,400. However, judges assigned to these courts have been given the authorization to offer a higher salary at their discretion.

Continued Systematic Inequities

Although the salaries between the Attorney General's Office and DPA have been equalized, the state of Kentucky continues to place more value on prosecution than on the defense of constitutionally protected rights. Full-time Commonwealth Attorneys, who are the chief prosecutors in each county, earn an annual salary of $75,361 while Directing Attorneys in DPA field offices have a starting minimum salary of $36,984. Despite the advances made in the funding of the public defender system in Kentucky, the perceived value of the mission of the Department remains in question because of the continued inconsistencies in compensation.

7 Surrounding States

The purpose of the following salary study of November 1995 was to compare the improvement in the funding of public defender salaries in Kentucky to the salaries paid to their counterparts in other states. The seven other states used in the survey were chosen because of cultural similarities, their geographic proximity to Kentucky and the similarity in the level of commitment by each state government to provide public defender services.

NEWLY LICENSED ATTORNEYS

Ohio	$32,780
Virginia	32,027
Missouri	23,856
Indiana	27,000
Tennessee	26,520
Illinois (appellate)	29,700
Illinois (Cook Co.)	31,512
West Virginia	26,500
Kentucky	23,388
Group Average (excluding Ky.)	28,736
Difference between Ky. & the Group Avg.	**5,348**

NOTE: Missouri P.D.'s move to $26,316 after 6 months

ATTORNEYS WITH 3 YEARS EXPERIENCE

Ohio	$36,130
Virginia	38,274
Missouri	31,620
Indiana	28,500
Tennessee	35,700
Illinois (appellate)	35,700
Illinois (Cook Co.)	37,774
West Virginia	*
Kentucky	34,560
Group Average (excluding Ky.)	35,029
Difference between Ky. & the Group Avg.	**469**

ATTORNEYS WITH 5 YEARS EXPERIENCE

Ohio	$41,600
Virginia	41,841
Missouri	46,644
Indiana	36,000
Tennessee	39,780
Illinois (appellate)	39,500
Illinois (Cook Co.)	41,265
West Virginia	*
Kentucky	36,984
Group Average (excluding Ky.)	41,002
Difference between Ky. & the Group Avg.	**4,018**

* Information not available

NOTES:

♣ Missouri capital public defenders earn an annual supplement of $8000.

♣ If they are assigned capital cases; supervisors in the Missouri system earn a supplement of $50 per month per employee supervised; the improvements in the Missouri system have resulted in a drop in the employee turnover rate from 20% to 10% annually;

♣ The base salary for attorneys in Indiana is based upon the type of cases they are assigned;

♣ COLA's and performance raises are possible;

♣ In West Virginia, the minimum salaries for attorneys with varying levels of experience is not available. This system consists of 15 independent district offices. Each office is a nonprofit corporation that has a board to oversee service delivery. Operational decisions are made by the board in conjunction with the office director. The system budgets a lump sum to cover the total operating costs for each office. Cost of living adjustments and other salary increases are based on performance and the availability of funds within a particular office;

♣ The annual salaries used in the survey were supplied by the participating state systems and the Administrative Office of the Courts in Frankfort, Kentucky.

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From the Recruiting Corner: Employment Opportunities

The following positions are available with the Kentucky State Public Defender's Office

Staff Attorneys: London and Hazard Field Offices - The Kentucky Department of Public Advocacy is seeking staff attorneys, both entry level and experienced, for two DPA field offices in London and Hazard. Salary - entry level $23,388.

Directing Attorney: Kenton County Field Office - The Kentucky Department of Public Advocacy is seeking a leader to direct the Kenton County field office. The position will become available after December 1, 1995. Salary - $36,984.

All letters or application must be accompanied by a writing sample and resume and should be submitted to Rebecca Ballard DiLoreto, Recruiter, Department of Public Advocacy, 100 Fair Oaks Lane, Suite 302, Frankfort, Kentucky 40601. Inquiries are welcome at the same address, by calling (502) 564-8006 or by E-mail at recruit@dpa.state.ky.us.

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Jones Announces Merit Pay for Kentucky State Police

FRANKFORT, August 2, 1995 - Gov. Brereton Jones announced a merit pay program for Kentucky State Police yesterday, saying he was also authorizing a 5 percent increase in entry-level salaries for troopers.

Jones said at a state police promotional ceremony that the merit pay program "will enhance the effectiveness of state officers and provide the encouragement needed to strive for excellence in the workplace."

The governor said that to qualify for merit pay, officers must meet five criteria during each 12-month evaluation period. They must, for example, have received no disciplinary action that resulted in an official written reprimand, reduction in pay or grade or involuntary suspension.

Those who meet all the standards during the first year will receive 2 percent of their gross annual salary in a lump sum.

Jones said he was boosting entry-level salaries 5 percent "to bring the state police starting salary in line with other comparable law enforcement agencies."

- Lexington Herald-Leader

Legislative Proposals by the Executive Branch Ethics Commission

The Executive Branch Ethics Commission recommends changes to the Ethics Code for consideration during the 1996 session of the General Assembly. The proposed changes fall into the following categories:

Jurisdiction (changes which affect the persons or subject matter under the Commission's jurisdiction);

Filings (changes which alter the manner in which filings are made);

Investigations and Adjudicatory Proceedings (changes which affect the manner in which investigations or proceedings are accomplished);

Penalties (changes which affect the Code's penalty structure;

Housekeeping (changes which are required due to changes in other laws or which "round out" our law without effecting a substantive change);

Executive Agency Lobbying (Changes to "real parties in interest" requirements, definition of "regular and substantial," reduction in number of filings, and housekeeping).

Our 25 proposals are summarized below:

Jurisdiction

1. *Change* the prohibition against an employee who is not an officer or elected public servant from having a *contract* or other agreement with *any* agency to a prohibition against such an employee having a contract or other agreement with the *agency by which he is employed.*

2. *Add* the provision that no former officer or public servant may have a *contract* with the state agency for which he was employed for *six months* after leaving state government (except for eminent domain and entitlement situations, certain purchases and sales, and certain personal service contracts).

3. *Add* the provision that *members* of boards, commissions, authorities, councils, and committees shall *not have* or enjoy *contracts* or agreements made with their agency (except sales or purchases available on the same terms to the general public or which are made at public auction). Also add the provision that these *members* shall *disclose conflicts* of interest and shall refrain from making a decision or casting a vote on any matter which will affect them differently than other members of their business, profession, occupation, or group.

The Commission believes these members are in positions where their decision-making authority may pose personal conflicts.

4. *Add* the provision that when a public servant who must abstain from a decision due to a conflict of interest has no superior, he must *disclose his conflict* in writing and request the Commission's opinion regarding the proper action he should take.

5. *Add* specific language to *prohibit* executive branch *employees* and officers from *accepting gifts and gratuities* from persons or businesses which do business with, or are regulated by, the employee's agency. The Commis-

sion believes such behavior is in violation of the more general provisions found in KRS 11A.020, but would prefer specific statutory language.

6. *Add* "any person who holds a personal service contract to perform on a full-time basis a function of any position listed in this subsection" to the group of individuals defined as an "officer" in KRS 11A.010(7). The Commission believes such a person should be covered by the Ethics Code since he is *performing all the duties* of a state government officer.

Also, require Commission members to be defined as officers such that they are under the jurisdiction of the Ethics Code.

Filings

7. *Require* Statements of Financial Disclosure by employees *only for years in which they were employed* by state government. Currently, the law requires that employees file Statements disclosing information for years not employed and does not require filing for the last year employed if the employment is terminated by December 31 of a given year.

The Commission also proposes to add clarifying language to the list of information required to be disclosed on a Statement of Financial Disclosure and to add the requirement that persons who file Statements disclose the major partners, co-owners, and customers of any outside business interests.

Investigations and Adjudicatory Proceedings

8. *Change* the *date* by which the Commission must *initiate a preliminary investigation* from 10 days of receipt of a complaint to not later than ten days after the next commission meeting following receipt of the complaint or initiation of an investigation on the Commission's own motion.

9. *State* that the Commission may turn over to *any law enforcement agency* (not just the Attorney General, the United States Attorney, or the Commonwealth's Attorney, as is currently provided) *evidence* which was acquired during a preliminary investigation and which may be used in any law enforcement investigation or proceeding. State that the Commission may disclose items acquired during a preliminary investigation during an adjudicatory proceeding. State that the Commission may publicly confirm the existence of a preliminary investigation if a public agency has publicly announced that it has referred a possible violation to the Commission.

Penalties

10. *Change* the penalty for *failing to file* a Statement of Financial Disclosure. Currently, an employee has his salary withheld until he files. There is no specific penalty for a former employee who is required to but has failed to file his final statement. Also, salary withholding with no maximum length of time or amount of money seems harsh; the Commission proposes capping the penalty at $100 per day with a $5,000 maximum.

11. *Add* a penalty of $5,000 for any public servant who *maliciously breaches the confidentiality* requirements of Commission actions as set forth in KRS 11A.080.

Housekeeping

12. *Add* "limited liability corporation" and "limited liability partnership" to the list of entities defined as a "business" in KRS 11A.010 (1). These legal entities were created after the Ethics Code was enacted.

13. Make several changes to the *definitions* and *agency names* due to changes in other statutes.

14. *Redefine* "state agency" to distinguish for statutory purposes the distinct entity for which an employee works.

15. *Revise* references to lobbyist to follow definition of "executive agency lobbyist" in KRS 11A.201 and "legislative agent" in KRS Chapter 6.

16. *Define* "procurement authority"; "management personnel"; "supervise"; "regulate"; "doing business with"; "publicly traded securities"; "presiding officer"; "public agency"; "directly involved"; and "appointing authority." Some of these terms are in the law but are not defined; others are necessary for the Commission's proposed legislation.

17. *Delete* the requirement that it is a violation for an employee to "use or attempt to use his official position to secure or create privileges, exemptions, advantages, or treatment for himself or others" only if the behavior is "in derogation of the public interest at large." It is the Commission's belief that an employee who uses his office to secure or create for himself or others privileges, exemptions, advantages, or special treatment is acting in an unethical manner whether or not the action is "in derogation of the public interest at large."

18. *Add "or for which he received, prior to his state employment, a professional degree or license,"* to the phrase "returning to the same business, firm, occupation, or profession in which he was involved prior to taking office or beginning his term of employment," as an exception to the six-month post-employment prohibition against officers and elected public servants from working for someone regulated by or doing business with their agency in matters in which they were directly involved.

19. *Conform* the adjudicatory proceedings sections to more easily coordinate with recently enacted legislation (HB 334, to be codified at KRS Chapter 13B - pertaining to executive branch agency adjudicatory proceedings).

20. *Institute* the requirement that the Commission not release the name of a person requesting an advisory opinion if the person makes such a request in writing.

21. *Remove* the requirement that the Commission prevent disclosure in its biennial report to the Legislative Research Commission of the identity of a person involved in decisions or advisory opinions. The Commission may keep a person's name confidential, but it may be impossible to prevent disclosure of *identity*. The identity of a person may be readily apparent in some instances since the person's employment position or other responsibilities may affect the charges filed in an adjudicatory proceeding and the opinion rendered in an advisory opinion.

Executive Agency Lobbying

Real Parties in Interest

22. A "real party in interest" referred to in KRS 11A.211 is a person or entity that has hired an employer to engage in lobbying activity on his behalf. Real parties in interest have a great interest in influencing decisions concerning the disbursement of state funds, yet are not currently required to register or file disclosures with the Commission.

Currently, executive agency lobbyists and their employers must register within 10 days of engagement. Any "real party in interest" must be identified on the initial registration statement pursuant to KRS 11A.211(1). The executive agency lobbyists and their employers are then required to file updated statements which reflect recent expenditures made on behalf of certain state employees and which detail profit-oriented joint financial transactions with those state employees. The "real party in interest" is identified as such in Commission filings, but, unlike an executive agency lobbyist or his employer, is never required to disclose expenditures or financial transactions.

For example *- XYZ company is trying to obtain a state contract. The company hires ABC law firm to contact state officials to determine contract specifications and eventually to negotiate on behalf of XYZ. ABC instructs one of its lawyers, Tom Q., to handle XYZ's work. ABC must register with the Commission as an employer, and Tom Q. as an executive agency lobbyist within 10 days of the engagement. On the initial registration form, XYZ must be identified as the real party in interest.*

Several times per year, ABC and Tom Q. file updated registration statements indicating any changes which have occurred since the last statement was filed, including changes in real parties in interest. ABC and Tom Q. must also disclose their recent expenditures made on behalf of, or financial transactions with, state employees, if any. However, as the law currently stands, XYZ company is free to make any expenditures or enter into any financial transactions with state employees without having to make such disclosure.

The Commission believes it was the intention of the legislature in enacting this law to mandate disclosure of expenditures and financial transactions made by or between persons who attempt to influence the disbursement of state funds and the state employees who make state disbursement decisions. As the law stands now, any person or entity may hire someone else to

lobby for him and avoid entirely the Ethics Code's disclosure requirements. For that reason, the Commission proposes that "real parties in interest" be required to register and file updated statements with the Commission.

By requiring "real parties in interest" to register and file updated statements, the public can be assured that it is aware of all reportable expenditures or financial transactions which may have been used to influence, or which may affect, decisions made by state employees regarding state disbursements.

Definition of "Regular and Substantial Basis"

23. An "executive agency lobbyist" currently is defined in KRS 11A.201(8) as "any person engaged to influence executive agency decisions or to conduct executive agency lobbying activity as one (1) of his main purposes on a regular and substantial basis." There is no statutory definition for "regular and substantial basis."

The Commission promulgated a regulation which defines "regular and substantial basis" as "executive agency lobbying activity of more than one time per year regarding a decision that involves state expenditures that exceed five thousand dollars ($5,000) per year."

The Commission proposes statutorily defining "substantial basis" (and deleting the requirement that the activity be "regular") as "contacts which are intended to influence a decision that involves one or more disbursements of state funds in an amount of at least five thousand dollars ($5,000) per year."

Reduction in Number of EAL filings

24. Updated registration statements are required to be filed three times per year: on January 31 (for the period of September, October, November, and December); May 31 (for the period of January, February, March, and April); and September 30 (for the period of May, June, July, and August).

The Commission proposes changing this schedule to allow for two filings per year: January 31 (for the period of July through December) and July 31 (for the period of January through June). This change will make it easier for those needing to file to remember when their updated statements are due and will increase administrative economy without diluting the law's goal of accurate and timely disclosure.

Housekeeping

25. "Executive agency lobbyist" is defined in KRS 11A.201, but there are several references in the Ethics Code to "executive lobbyists," "lobbyists," and even "legislative agents."

The Commission proposes to "clean up" the language to make it consistent with the defined term. The Commission proposes adding "limited liability partnership" and "limited liability corporation" to the list of those defined as "persons" in KRS 11A.201(13). These types of legal entities were created after the Ethics Code was enacted.

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The Department of Public Advocacy maintains a complete set of Executive Branch Ethics Commission advisory opinions so they can be readily accessed by members of the Department. If you would like to obtain a copy of any advisory opinion or look at them generally, you can contact Allison Connelly, the Public Advocate, or Vince Aprile, General Counsel, at 100 Fair Oaks Lane, Suite 302, Frankfort, Kentucky 40601; Tel: (502) 564-8006; Fax: (502) 564-7890; E-mail: aconnell@dpa.state.ky.us or vaprile@dpa.state.ky.us.

Criminal Justice Mental Health Forum: A Dialogue to Greater Meaning

Dare we observe that there is a dearth of dialogue in our criminal justice system? Is "truth" better approached by interdependent dialogue rather than destructive discussion?

A leading quantum theorist, David Bohm, see *The Special Theory of Relativity* (1965) is developing a theory of *dialogue* when a group of people "becomes open to the flow of a larger intelligence." He has explored the analogy between the collective properties of particles and the way we think together. "As with electrons, we must look on thought as a systematic phenomena arising from how we interact and discourse with one another." He distinguishes *discussion*, an exchange that has winning as its purpose from dialogue.

Bohm sees groups using dialogue to access a greater "pool of common meaning" which individuals cannot obtain. "The whole organizes the parts." Three conditions Bohm sees as necessary for dialogue are:

1) participants must "suspend" their assumptions;
2) participants must see each other as colleagues; and
3) a facilitator must "hold the context."

In *Physics and Beyond: Encounters and Conversations*, Werner Heisenberg postulates that "Science is rooted in conversations. The cooperation of different people may culminate in scientific results of the utmost importance."

In an attempt to achieve deeper insights, *The Advocate* invites you to join in the scientific, legal and human dialogue on what constitutes a competent mental health evaluation for indigent criminals accused that is occurring between attorney John Blume, psychologist Harwell Smith, Ph.D. and attorney and psychologist, Eric Drogin, Ph.D. In the August, 1995 *Advocate* John Blume set out what his experience reveals as the components of competent evaluations. In the November issue Dr. Smith took issue with the practicality of Blume's views. In this issue Blume replies and Drogin enters the dialogue. Already, we see the tragic tension between the *ideal we all know should occur in Kentucky* and the *reality of current Kentucky practice*. We invite reflection, inquiry and dialogue from you.

Dialogue vs. Discussion

The discipline of team learning starts with "dialogue," the capacity of members of a team to suspend assumptions and enter into a genuine "thinking together." To the Greeks *dia-logos* meant a free-flowing of meaning through a group, allowing the group to discover insights not attainable individually. Interestingly, the practice of dialogue has been preserved in many "primitive" cultures, such as that of the American Indian, but it has been almost completely lost to modern society. Today, the principles and practices of dialogue are being rediscovered and put into a contemporary context. (Dialogue differs from the more common "discussion," which has its roots with "percussion" and "concussion," literally a heaving of ideas back and forth in a winner-takes-all competition.)

- Peter M. Senge, *The Fifth Discipline: The Art of Practice of the Learning Organization* (1990) at 10.

Mental Health Issues in Criminal Cases: A Reply to Dr. Smith

In the November issue of this publication, Dr. Harwell F. Smith wrote to correct several "of the more outlandish, not to say insane, remarks of Mr. Blume" contained in my August article *Mental Health Issues in Criminal Cases*, Vol. 17, No. 4 (Aug. 1995) at 5. *See* Smith, *Mental Health Issues in Criminal Cases, Revisited: Introducing Some Reality Into the Blume Position*, *The Advocate*, Vol. 17, No. 5 (Nov. 1995) at 6.

While his comments are quite wide ranging, in the final analysis he appears to take issue with three points I made in my article: (a) that a complete and accurate social and medical history must be obtained to insure that the results of a mental health evaluation are reliable; (b) that neuropsychological testing is critical in most cases; and, (c) that courts and attorneys fail to understand the Supreme Court's decision in *Ake v. Oklahoma*, 470 U.S. 68 (1985). I will respond briefly to Dr. Smith's critique and make several other points.

A. The importance of neuropsychological testing.

Dr. Smith contends that many mental health professionals believe that neuropsychological testing is not generally required in competency (CST) and criminal responsibility (CR) evaluations. It is true, unfortunately, that many health professionals do minimize the significance and need for neuropsycholoical testing. In my opinion, the reason for this shortcoming is demonstrated in Marilyn Wagner's June 1995 *Advocate* article, *Neuropsycholoigcal Evidence in Criminal Defense: Rationale and Guidelines for Enlisting an Expert*, *The Advocate*, Vol. 17, No. 3 at 8, which Dr. Smith cites with approval:

> most psychologists are neither trained or experienced in the nature of brain injury and its complex effects on behavior. The result is frequently that factors of brain injury are not considered in forensic evaluations. *Id.* at 8.

Because most psychologists are not trained in neuropsychology, and because neuropsychological testing is time consuming, it is frequently not conducted, even if needed. While Dr. Wagner states that neuropsychological testing is not always necessary, she lists the following situations when it is needed:

- there are developmental events that involved Central Nervous System injury;
- there have been events leading to loss of consciousness or disorientation, even if hospitalization did not occur;
- there is a documented disorder involving brain damage;

Drive-By Examinations

People with serious mental problems who face the death penalty are sent to the state mental hospitals where prosecutors can count on their mental health experts to conduct a cursory examination and turn out a report saying that the defendant is competent for trial, is not insane, has nothing wrong with him and is probably malingering. These brief "drive-by" evaluations often fail to detect brain damage, mental retardation or other mental deficits. But often the defense lawyer is not provided with a psychiatrist, psychologist, neurologist or other expert to conduct a proper examination and make a more reliable determination of whether there is some impairment that may be relevant to mental state or mitigation of punishment.

- Stephen B. Bright, "The Politics of Crime & the Death Penalty: Not 'Soft on Crime,' But Hard on the Bill of Rights," 39 *Saint Louis University Law Journal* 479, 486 (1995)

♦ there is a history of significant alcohol or polysubstance abuse;

♦ there is a pattern of problems with impulse control, memory dysfunction or violent behavior.
Id. at 10.

How many of our clients, especially those charged with serious crimes, do not have one or more of the indicators mentioned by Dr. Wagner? In my experience the answer is very, very few. Furthermore, the studies which have been done indicate a high incidence of neurological impairment in individuals charged with violent crimes. *See, e.g.*, Lewis, Pincus, Feldman, Jackson & Bard, *Psychiatric, Neurological and Psychoeducational Characteristics of 15 Death Row Inmates in the U.S.*, American Journal of Psychiatry 143:838 (1986). A neuropsychological battery is one of the most reliable means of determining how an individual's brain actually processes information and thus I stand by my assertion, based on my experience and supported by the professional literature, that neuropsychological testing is almost always necessary to ensure that a competent and reliable mental health examination is conducted.

B. The need for a thorough and reliable history.

Dr. Wagner's list of when neuropsychological testing is necessary also underscores the need for a thorough, complete and reliable history. Unless all relevant records are obtained and all material social history witnesses are interviewed, there is a substantial risk that mistakes will be made. Clients are rarely able to provide full and complete histories of their psycho-social past. They may minimize their substance abuse histories, fail to reveal significant physical, sexual and emotional trauma, not remember significant head injuries or be unable to articulate critical facts.

While I agree with Dr. Smith that "every imaginable factor" can not be considered, it is still all too often true that inadequate psycho-social histories lead to inaccurate results. Most state institutions either because of the lack of time, staff or resources, or for other reasons, do not conduct an adequate social and medical history. Neither do many private mental health professionals. That is simply a fact of life.[1] But I can not tell you the number of times when the investigation we have conducted in a post-conviction case has revealed significant aspects of a client's social and medical history which were unknown by the mental health professional who evaluated the defendant prior to trial. Furthermore, in many of these cases I have heard the evaluating professional make the following comment: "I had no idea, if only I had known...." For example, in one of our cases, we learned during our investigation that our client had been physically, sexually abused for years in a variety of foster homes. However, because he was deeply ashamed, and because he had "blanked" many of the events out, the psychiatrist who evaluated him at trial was under the impression that his formative years had been unremarkable. When the facts came to light, and the evaluation could be conducted with the benefit of a reliable history, all evaluating professionals, even those employed by the prosecution, agreed that our client sufferred from post-traumatic stress disorder. Thus, it is our responsibility to know, and to make sure our mental health professionals learn of all relevant facts.

Physical Exams

Psychiatrists are increasingly expected to perform medical evaluations designed to detect potential medical problems underlying a psychiatric presentation. The psychiatric manifestions (for example, hallucinations, delusions) of a particular medical disorder are usually not specific to that medical condition alone, so the clinician needs to entertain a list of organic possibilities for the patient's psychiatric symptoms. Table 9.7-1 outlines a list of medical conditions that may present with psychiatric symptoms. Each of those diagnostic possibilities may argue for a different set of laboratory or diagnostic tests. The discovery of an organic cause for a psychiatric presentation can have profound treatment implications for directing the therapy away from mere symptomatic treatment and toward an appropriate therapeutic intervention for the underlying medical problem.

A relevant medical history, a review of systems, and a physical examination are essential for the selection of appropriate laboratory and diagnostic tests.

- Richard B. Rosse, M.D., Lynn H. Deutsch, D.O., Stephen I. Deutsch, M.D., Ph.D.
"Medical Assessment and Laboratory Testing in Psychiatry,"
The Comprehensive Textbook of Psychiatry (1995 6th Ed.)

The need for a history is especially critical in capital cases. Dr. Smith fails to mention perhaps the most important aspect of a mental health professional's evaluation in a capital case: the search for and explanation of mitigating circumstances. As the United States Supreme Court has explained, "[i]n a capital sentencing proceeding, "the jury is called upon to make a 'highly subjective, unique, individualized judgment regarding the punishment that a particular person deserves.'" *Turner v. Murray*, 476 U.S. 28 (1986) (quoting *Caldwell v. Mississippi*, 472 U.S. 320 (1985)). Thus, without accurate evidence regarding the "diverse frailties of humankind," *Woodson v. North Carolina*, 428 U.S. 280, 304 (1976), such as evidence of a "turbulent family history," "beatings by a harsh father," and evidence of a "severe emotional disturbance," the result of the sentencing proceeding may well be unreliable. *Eddings v. Oklahoma*, 455 U.S. 104, 115 (1982). This is so "because of the belief, long held by this society, that defendants who commit criminal acts that are attributable to disadvantaged background, or to emotional and mental problems, may be less culpable than defendants who have no such excuse." *California v. Brown*, 479 U.S. 538, 545 (1987) (O'Connor, J., concurring).

Expert testimony regarding mitigating factors in capital cases is not limited by the restrictions inherent in many state's definitions of competency and criminal responsibility or even statutory mitigating circumstances. Rather, it is a far reaching inquiry which necessarily encompasses details about the defendant's entire life. Psychologists are ethically required to "strive to maintain high standards of competence in their work." *Ethical Principles of Psychologists and Code of Conduct, American Psychologist* (Dec. 1992). "Forensic psychologists have an obligation to provide services in a manner consistent with the highest standards of their profession." *Specialty Guidelines for Forensic Psychologists, Law & Human Behavior*, Vol. 16, No. 6 (Dec. 1991) at 657. Thus it would be unethical for any expert to give his opinion regarding mitigating circumstances without first ensuring that a complete and exhaustive social and medical history had been conducted. When human life is at stake, the highest standards of the profession must encompass an exhaustive psychosocial history.

C. A word about *Ake*

Dr. Smith attempts to rewrite the United States Supreme Court's decision in *Ake v. Oklahoma*, 470 U.S. 68, 80 (1985), maintaining that the "central error was that the psychiatrists who examined Ake *never examined him for criminal responsibility yet they testified to his criminal responsibility at trial.*" *Smith, supra*, Vol. 17, No. 5 at 7. This is part of, but certainly not the whole story. The constitutional right identified in *Ake*, as the Kentucky Supreme Court correctly noted in *Binion v. Kentucky*, 891 S.W.2d 383 (Ky. 1995), was the failure to provide the defense with its own expert to "assist in the evaluation, preparation and presentation of the defense." *Id.* at 386. *Ake* noted that mental health experts must be made available to indigent defendants, because "the potential accuracy of the jury's determination is...dramatically enhanced" by providing indigent defendants with "competent psychiatrists who will conduct an appropriate examination." *Id.* at 83.[2]

A "neutral" state expert, even a well meaning one, simply cannot fulfill this role. The Kentucky Supreme Court correctly recognized in *Binion* and *Hunter v. Commonwealth*, 869 S.W.2d 719 (Ky. 1994) that in a criminal case, especially a capital case, the defense team needs mental health professionals who can conduct a meaningful evaluation, offer their own conclusions regarding a defendant's mental state and any mitigating circumstances and assist in identifying the errors in any contrary opinions reached by the state's experts.[3] *Ake* entitles a indigent defendant to a competent mental health professional who conducts a competent examination.

FOOTNOTES

[1]In some cases, an inadequate history results from the fact that mental health professionals agree to conduct an evaluation for a flat fee. For example, in some jurisdictions psychologists agree to perform both a competency and criminal responsibility evaluation for the set fee of $500. While virtually any competent mental health professional would agree that $500 is completely inadequate for a competency and criminal responsibility evaluation, there is the danger that even a more reasonable flat fee arrangement discourages a mental health professional from vigorously pursuing a client's

history due to the amount of time it takes to conduct an adequate history.

[2]*See also Ake*, 470 U.S. at 80 (when the defendant's "mental condition [is] relevant to his criminal culpability and to the punishment he might suffer, the assistance of a psychiatrist may well be crucial to the defendant's ability to marshal his defense").

[3]*See Smith v. McCormick*, 914 F.2d 1153 (9th Cir. 1990) (holding that habeas corpus petitioner was denied expert psychiatric assistance in developing and preparing mitigating circumstances at the sentencing phase of a capital trial).

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Complete Medical Examination Required for Competent Evaluation

To those who view a complete medical examination and psychiatric history unnecessary in order to render an opinion on a defendant's mental state, *Iowa v. Coker*, 412 N.W.2d 589 (Iowa 1987) is instructive. *Coker* was charged with first degree robbery and the unauthorized possession of an offensive weapon. His defense was that his voluntary intoxication negated the specific intent element of robbery. The trial court denied the indigent defendant's request for funds for an expert to offer an opinion on whether *Coker* was able to form the requisite intent.

After *Coker's* arrest and jailing, he had seizures and had to be hospitalized. Dr. R. Paul Penningroth, a psychiatrist with a specialty in substance abuse, treated the defendant while hospitalized after his arrest. During the trial, the psychiatrist "detailed Coker's serious withdrawal symptoms indicative of both alcoholic withdrawal syndrome and the more serious alcoholic withdrawal delirium. Based upon Coker's laboratory reports, Dr. Penningroth also opined Coker was extremely intoxicated, even stuporous, at the time of the robbery." *Id.* at 590.

When the psychiatrist was asked whether he had an opinion on the ability of the defendant to be able to form the intent to commit the crime, the doctor stated, that "he had none, although psychiatrists were able to render such opinions." *Id.* at 590-91. Although the psychiatrist had reviewed Coker's records and had treated him for withdrawal, he testified that "to express such an opinion he would require further examination of Coker, including a complete medical and psychiatric history, as well as interviews with friends and families." *Id.* at 591. The Iowa Supreme Court reversed the conviction ordering that the indigent defendant be afforded funds for that evaluation process so the defendant could competently present his defense.

Forensic Mental Health Assessment: Moving from *Examination* to *Evaluation*

> *The more technique you have, the less you have to worry about it.*
>
> - Pablo Picasso (1881-1973)

What Sort of Mental Health Assessments Do Indigent Defendants Deserve?

This is the fundamental question in a debate which has raged back and forth for many years,[1] finding its latest expression in recent issues of *The Advocate*.

The key word is this context is indigent. From time to time, we have all fantasized about the sort of treatment and representation our patients and clients could receive, if only someone had the money to pay for it. In an era of shifting values, advocates and clinicians alike are always frustrated in their attempts to indulge *Simpson* tastes with a *Gideon* pocketbook.

In our experience, attorneys for affluent and indigent clients alike, want the same thing. They want a thorough, competent evaluation from an unbiased expert -- or set of experts. When such evaluation is completed, they want any favorable results to be explained to the judge and jury in a persuasive, compelling fashion. If evaluations produce conflicting results, that can be interpreted to the detriment of the defendant, they want the most effective, convincing assistance in minimizing such effects.

Public defenders feel their clients deserve what they, and other attorneys, want for their defendants. In the past decade, the Supreme Courts of the United States and Kentucky have been inclined to agree with the stand public defenders have taken. How can these attorneys assure that their indigent clients are receiving the mental health assistance to which the law entitles them?

From *Ake* to *Binion*: Bringing It All Back Home

In *Ake v. Oklahoma*, 470 U.S. 68 (1985), the Supreme Court of the United States, per Justice Marshall, held that:

> When a defendant has made a preliminary showing that his sanity at the time of the offense is likely to be a significant factor at trial, the Constitution requires that a State provide access to a psychiatrist's assistance on this issue if the defendant cannot afford one. *Id.* at 74.

The Court directed that, when this threshold showing of "likely need" was reached:

> [T]he State must, at minimum, assure the defendant access to a competent psychiatrist who will conduct an appropriate examination and assist in evaluation, preparation, and presentation of the defense. *Id.* at 83.

The potential role of this expert was described in the following fashion:

> The foregoing leads inexorably to the conclusion that, without the assistance of a psychiatrist to conduct a professional examination on issues relevant to the defense, to help determine whether the insanity defense is viable, to present testimony, and to assist in preparing the cross-examination of a State's psychiatric witnesses, the risk of an inaccurate resolution of sanity issues is extremely high. *Id.* at 82.

Ten years later, in *Binion v. Commonwealth*, 891 S.W.2d 383 (Ky. 1995), the Supreme Court of Kentucky, per Justice Wintersheimer, echoed the reasoning in *Ake*:

> We are persuaded that in an adversarial system of criminal justice, due process requires a level playing field at trial... [T]here is a need for more than just an examination by a neutral psychiatrist. It also means that there must be an appointment of a psychiatrist to provide assistance to the accused to help evaluate the strength of his defense, to offer his own expert diagnosis at trial, and to identify weaknesses in the prosecution's case by testifying and/or preparing counsel to cross-examine opposing experts. *Binion* at 386.

Many public defenders in this jurisdiction have made particularly good use of the *Binion* decision, obtaining funds for mental health consultation by clinicians who may never formally examine the defendant, but who provide a range of services in the solicitation, coordination, and preparation of the mental health defense and/or mitigation. It appears, however, that such clinicians are not uniformly qualified to provide this assistance.

The "Appropriate Examination" Must Lead to a Comprehensive Evaluation

The semantic implications of the *Ake* mandate of an appropriate examination" may obscure the fact that what indigent and other defendants require is a comprehensive *evaluation*.

An "examination" occurs when the clinician is gathering data directly from a patient or client. Several examinations by one clinician may be necessary, perhaps in addition to examinations by others who profess different disciplines or specializations. The combination of examination, record review, consultation, interview, and research comprises an "evaluation," the results of which may be expressed in the form of a report, deposition, and/or courtroom testimony.

For this reason, the "appropriate" examination may be one of several "necessary" examinations, uniquely needed in forensic work.

This is underscored by attempts to describe the proper role of various clinical specialists who may be called to serve within the context of the forensic psychological evaluation. In a recent article in *The Advocate* entitled "Neuropsychological Evidence in Criminal Defense: Rationale and Guidelines for Enlisting an Expert," Vol. 17, No. 3, (June 1995), Dr. Marilyn Wagner wrote under the heading "What Traditional Psychology Misses":

> Most psychologists are neither trained [n]or experienced in the nature of brain injury and its complex effects on behavior. The result is frequently that factors of brain injury are not considered in forensic evaluations. *Id.* at 8.

Regarding "The Unique Role of Neuropsychology," Dr. Wagner further maintained that:

> A neuropsychological expert is able to present quantifiable, normative data about the relationship between physical aspects of brain damage and its behavioral consequences, in sharp contrast to traditional reliance on professional opinions deduced merely from clinical interview impressions, or mental status examinations... The advantage of a neuropsychological evaluation over traditional psychological testing is that both functional and organic bases for behavior are investigated. *Id.* at 9.

In his article in the current issue of *The Advocate*, entitled "Mental Health Issues in Criminal Cases: A Reply to Dr. Smith," Vol. 18, No. 1 (January 1996), attorney John Blume concurs that:

> Because most psychologists are not trained in neuropsychology, and because neuropsychological testing is time consuming, it is frequently not conducted, even if needed. *Id.* at 113.

Neither author has suggested that any one specialty of psychology is inherently superior, or is uniquely applicable to the range of issues faced in forensic clinical assessment. Mr. Blume both acknowledges and endorses Dr. Wagner's contention that:

> Not all criminal cases demand a neuropsychologist as expert... However, there are some conditions under which investigating from a neuropsychological perspective is strongly indicated. Wagner, *supra* at 10.

"Neuropsychological functioning" is described in Kentucky, from a licensing and regulatory

perspective, as one of six "personal characteristics." The assessment of these characteristics comprises but one of the 15 "services" falling under the professional definition of "clinical psychology."[2]

This underscores the point that neuropsychology is not distinct from the discipline of clinical psychology; rather, it represents a *specialization* within clinical psychology which functions, in certain cases, as an important, even requisite method of investigation.[3] In any branch of clinical science, specialization must be grafted onto the parent discipline's core body of knowledge and skills, based in the professional literature. Mastery of this foundation creates a psychologist, who may become a clinical or counseling psychologist,[4] and then, perhaps, a neuropsychologist, a forensic psychologist, *et cetera*.

Dr. Wagner and Mr. Blume are quite right in asserting that many clinical psychologists may fail to identify significant symptoms of organic dysfunction. What emerges from this discussion is the following: *The issue is not that these persons were not neuropsychologists; it is that they failed to perform or adequately interpret the proper neuropsychological screening, and then compounded the error by failing to indicate the need for formal neuropsychological assessment.*[5]

Experts in the field have long recognized the need for a neuropsychological component to any competent forensic psychological examination. In his classic *The Psychologist as Expert Witness* (1984), Dr. Theodore Blau included among requisite elements of the criminal responsibility assessment battery:

> d. **Neuropsychological Factors.** Even if no neuropsychological deficit is suspected from either history or behavior, a screening evaluation should be done. Any anomalies of significance found on the screening test will require proceeding to a full neuropsychological evaluation. *Id.* at 91.

Screening for neuropsychological problems involves more than just the administration of standardized psychological tests. Detection of these conditions is also supported by clinical observations from interview, performance difficulties on tests designed to measure other psychological factors, and review of medical and other histories.

In *Forensic Psychiatry and Psychology: Perspectives and Standards for Interdisciplinary Practice* (1986), edited by W. Curren, A. McGarry, and S. Shah, Dr. Thomas Grisso wrote that:

> Psychologists recognize that there is error inherent in any single method of observation. Furthermore, the usual meaning of one ability test score might require reconsideration for some individuals because of the presence of some other ability or trait. For these reasons, psychologists require that these interpretations of assessment results be grounded in more than one data source and that enough information has been obtained to rule out optional interpretations. Together these safeguards constitute what is referred to as a *multimethod - multitrait approach to an assessment... This multimethod precaution is basic and essential for psychological assessments. Id.* at 109-110 [original emphasis].

When forensic mental health experts uncover a history of childhood abuse or neglect, they need not be specialists in Child Psychology to gauge its effects. To appreciate the significance of poor academic grades, poor reading skills, and special education placement, they do not need to be licensed in School Psychology. A Ph.D. in Experimental Psychology is not required to evaluate the reliability and validity of various psychological tests, or the soundness and applicability of the research literature in various subject areas.

Performance of an appropriate forensic psychological evaluation does require solid grounding in one's core discipline, *e.g.* clinical psychology, plus sufficient additional training, education, and experience in the specialized area of forensic psychology. Inherent in either aspect of this blended role is the ability to recognize issues requiring additional expertise, and the commitment to recommend specialized referral where necessary.[6]

Our view is that the goals of most attorneys, in the mental aspects of defense, will be best met if a forensic specialist, such as a forensic

psychologist, aids in the selection of experts. Indeed, this form of *trial consultation* may be very best use of specialists in Forensic Psychology, or possibly, Forensic Psychiatry. Just as a clinician not grounded in neuropsychology may "miss" the clinical implications of brain damage, the neuropsychologist may "miss" its forensic implications.

Conclusion

In procuring a forensic mental health evaluation on behalf of indigent defendants, attorneys must assure themselves of a potential expert's understanding of, and commitment to, the principles and techniques of forensic assessment, regardless of core discipline or clinical specialization, before contemplating the specific elements of a psychological testing battery.

The difference between the administration of a prescribed series of tests, and the ability to knit results from all sources of data into a responsive, compelling, persuasive, and ultimately convincing whole before the trier of fact, is the difference between the clinical psychologist who performs an *examination* and the forensic psychologist who conducts an *evaluation*. In regard to the latter, your indigent clients deserve no less.

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Curtis Barrett *is a clinical and board-certified forensic psychologist with over 25 years of experience in forensic assessment. Dr. Barrett is a Professor in the University of Louisville School of Medicine's Department of Psychiatry and Behavioral Sciences, and is currently Chief Psychologist for the Norton Psychiatric Clinic in Louisville. He has served in the past in such roles as Director of Continuing Education for the American Academy of Forensic Psychology, President of the Psychology and Psychologists in Addictive Behaviors (now Division 50 of the American Psychological Association), President of the Kentucky Psychological Association, and Chair of the Kentucky Board of Examiners of Psychology. Dr. Barrett is the author of numerous articles on clinical and forensic psychology.*

Footnotes

[1] See, *e.g.*, C. Slobogin, "*Estelle v. Smith*: The Constitutional Contours of the Forensic Evaluation," 31 Emory L.J. 71, 103-104 (1981), R. Petrella & N. Poythress, "The Quality of Forensic Examinations: An Interdisciplinary Study," 51 J. Consult. & Clinical Psychol. 76 (1983), and D. Faust & J. Ziskin, "The Expert Witness in Psychology and Psychiatry," 241 Science 31 (1988).

[2] 201 KAR 26:121 ("Scope of Practice").

[3] From a clinical scientific point of view, Dr. Robert Campbell has defined "neuropsychology" in *Psychiatric Dictionary* (6th ed. 1989) as:

> That branch of clinical psychology concerned with the evaluation of brain dysfunction and particularly with the development, standardization, and validation of techniques to assess behavioral expressions of such dysfunction. Neuropsychological assessment employs batteries of tests to evaluate major areas of functioning, both quantitatively and qualitatively, not only to provide assistance in differential diagnosis but also to assess levels of impairment as part of planning

a treatment and rehabilitation program for the patient. Campbell, *supra* at 475.

[4] The focal reference to clinical and counseling psychologists in this context is neither to disparage nor to ignore the equally important contributions of school, experimental, industrial-organizational, and other psychologists to the broader field of forensic mental health.

[5] In Kentucky, according to 201 KAR 26:200 ("Definitions of terms used by the Board of Examiners of Psychologists for meeting educational requirements for licensure as a licensed psychologist") and 201 KAR 26:210 ("Definitions of terms used by the Board of Examiners of Psychology for meeting educational requirements for certification as a psychological associate"), applicants typically must prove that their educational backgrounds include courses in:

1. Biological bases of behavior, such as physiological psychology, comparative psychology, neuropsychology, sensation and perception, [and] psychopharmacology.

[6] The American Psychological Association's "Ethical Principles of Psychologists and Code of Conduct," 47 American Psychologist 1597 (1992) include the following statements in reference to forensic psychological activities:

7.01 Professionalism - Psychologists who perform forensic functions, such as assessments, interviews, consultations, reports, or expert testimony, must comply with all other provisions of this Ethics Code to the extent that they apply to such activities. In addition, psychologists base their forensic work on appropriate knowledge of and competence in the areas underlying such work, including specialized knowledge concerning special populations.

7.02 Forensic Assessments

[a] Psychologists' forensic assessments, recommendations, and reports are based on information and techniques (including personal interviews of the individual, where appropriate) sufficient to provide appropriate substantiation for their findings.

[b] Except as noted in [c] below, psychologists provide written or oral forensic reports or testimony of the psychological characteristics of an individual adequate to support their statements or conclusions.

[c] When, despite reasonable efforts, such an examination is not feasible, psychologists clarify the impact of their limited information on the reliability and validity of their reports and testimony, and they appropriately limit the nature and extent of their conclusions or recommendations. *Id.* at 1610.

The American Academy of Forensic Psychology and the American Psychology-Law Society, in their "Specialty Guidelines for Forensic Psychologists," 15 Law and Human Behavior 655 (1991) have also adopted standards which address these issues:

III Competence

A. Forensic psychologists provide services only in areas of psychology in which they have specialized knowledge, skill, experience, and education.

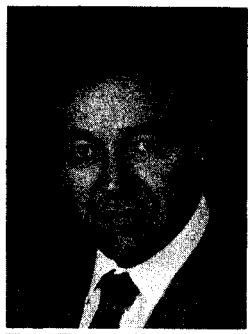
B. Forensic psychologists have an obligation to present to the court, regarding the specific matters to which they will testify, the boundaries of their competence, the factual bases (knowledge, skill, experience, training, and education) for their qualification as an expert, and the relevance of those factual bases to their qualification as an expert on the scientific matters at issue.

Truth has a way of shifting under pressure.

- Curtis Bok

Book Review

Comprehensive Textbook of Psychiatry VI
Williams & Wilkins Co., Baltimore, 1995
Kaplan, H.I. & Sadock, B.J.



Dr. Douglas Ruth

There's something about a book with a white cover that invites reading, as if the reader expects that, not just the binding, but the content itself will be lighter. The crisp, white covers with red lettering, boasting the color illustration of a SPECT brain image super-imposed upon an MRI scan--the Lexus of neuro-anatomic imaging--imply that the *Comprehensive Textbook of Psychiatry*, sixth edition will be entertaining as well as timely. Once the books are opened, the layout further visually encourages reading. Illustrations, tables, graphs, changes in font size, or bold subheadings break up the blocks of text on every page.

Data on functional brain imaging currently make a good index of the recency of published neuropsychiatric material. Several pages of color plates of PET and SPECT scans start educating the reader before page 1. Close by, a section entitled "Principles of Neuroimaging" in the first chapter, "Neural Sciences," explains the physical principles underlying these diagnostic investigations. In the next chapter, the section "Neuroimaging in Clinical Practice" patiently details the expected findings of CT, MRI, and functional neuroimaging studies such as SPECT scans in stages of psychiatric and neurological disorders. The compulsive researcher who demands even more data or the clinician who skips the basic science chapters and begins reading in the more clinically oriented topics will find even more material. "Schizophrenia: Brain Structure and Functions," a subchapter under Schizophrenia," explains the research and clinical imaging findings in schizophrenia, and illustrates the brains of schizophrenics compared to the brains of their non-afflicted identical twins, for example.

To write for such a disparate audience as psychiatrists must be daunting. The contributors, numbering some 300, plotted two paths in order to satisfy such a variety of interests: providing an encyclopedic text of adequate breadth and depth and discussing the contributions from each subspecialty and school of thought in psychiatry.

The scope of these two volumes is so broad that the psychiatrist, or any mental health professional, can find adequate material to update himself in practically any related subject. A consultation psychiatrist, for example, will find drawings of organ transplantations and will read about the behavioral side effects of immunosuppressant drugs used in such surgery.

Information is layered in such depth that an academician can prepare entire lectures from the two volumes, saving time he would otherwise spend challenging the maze of the medical center library or driving his modem through the electronic data bases.

In addition to clinical sections devoted to disease entities, chapters and subchapters are dedicated to the interests of subspecialties such as geropsychiatry, child psychiatry, addictionology, and others. Further, devotees to different schools of thought or disciplines, such as psychoanalysis or psychopharmacology, will find chapters addressing their basic theories. Psychoanalysts will be pleased with their own chapter of 55 pages, including no fewer then 7 photographs of Freud.

Then, as each illness is discussed, the theories that each school of thought has contributed to the etiology, pathology, and treatment are presented. Mental health professionals of all disciplines will find this edition a rich resource and will readily make room on their shelves by tossing out several books of more narrow scope, now unneeded.

Forensic psychiatry seems curiously underweighted in these volumes. Only one chapter of 28 pages is nominally assigned to the subject. Fortunately, it is authored by Thomas Gutheil whose lively and concise writing style and capacity to preserve clinical judgment as focus moves into the courtroom give us great value per line of print in this brief chapter. The brevity forces him to focus on issues that are urgent for most practicing psychiatrists, such as consent, confidentiality, commitment, and malpractice--treatment related matters. The consultative work of the forensic psychiatrist enjoys less attention.

An attorney, especially one experienced in malpractice litigation, might be discouraged to find these scant pages tucked near the back cover as if an afterthought. But a wealth of information that is of value to the forensic assessment is scattered throughout the two volumes. The neuroimaging devices referred to above, for instance, are often used to assess head trauma in personal injury or worker's compensation conflicts and to assess mental illness in addressing criminal responsibility and competence. The phenomenon of behavioral disinhibition from benzodiazepines, presented by the defense as a mitigating factor, is described.

While on the subject of drug abuse, one will be amused to read that the official policy in Singapore is to allow abrupt, or "cold turkey," withdrawal from opiates, since the discomfort is viewed as a deferent to relapse. Photographs of the "skin popper," with countless sores and scars from drug injections, and the heroin addict who is puffing out her cheeks in order to distend the jugular vein to a size that would accommodate a needle, chill the reader.

Descriptions of psychiatric symptoms, psychiatric rating scales, and neuropsychological testing are detailed enough to help the lawyer assess the appropriateness of his expert witness's report. Specific drugs indicated for psychiatric disorders are described, including usual doses, side effects, and even potential drug interactions, providing the attorney with insight into his client's psychiatric treatment.

Annoying proofreading errors seem to be the principal fault of this textbook. An explanation of benzodiazepine intoxication ends abruptly in mid sentence, leaving the puzzled reader flipping pages to see if it might surface later. The word "within" was misprinted as "without," sneaked through the spellchecker in disguise, and tried to reverse the meaning of a sentence. Various authors paraphrased or even repeated comments in consecutive sentences. On occasion a phrase or even half a paragraph was so jumbled as to defy comprehension.

But the reader forgives such flaws in a book with such an attractive cover, enticing layout, and rich content.

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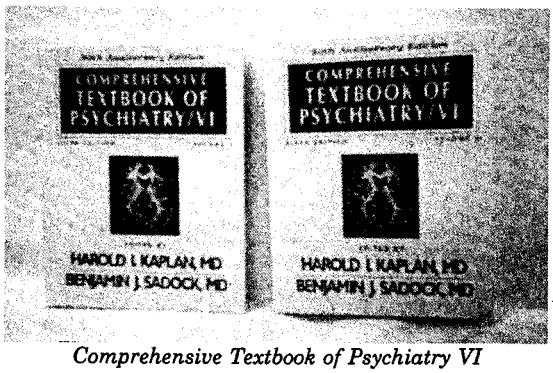
Dr. Ruth is a Diplomate of the American Board of Psychiatry and Neurology. He has been in private practice in Lexington, Kentucky, since 1978. He recently became certified with added qualifications in forensic psychiatry.

Another important issue is whether psychiatrists should testify for the prosecution in matters that may lead to harsh punishment, including the death penalty. If the expert's responsibilities of beneficence and nonmaleficence apply to society, rather than the accused, justification may arguably turn on expert qualifications and on how well future dangerousness can be predicted. In capital cases, treatment designed to restore criminals to mental competence so that they may be executed does imply a patient-physician relationship and is ethically prohibited.

- James E. Rosenberg, M.D. & Spencer Eth, M.D., "Ethics in Psychiatry," *The Comprehensive Text book of Psychiatry* (1995 6th Ed.) at 2773.



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