

CURRENT LITERATURE ON ANIMAL BEHAVIOR AND PHYSIOLOGICAL PSYCHOLOGY

Citations of current literature are arranged in outline form so that readers may easily find the particular articles in which they are interested. The literature on Animal and Physiological Psychology is divided into two parts, with each part appearing in alternate months. The part covered here consists of Animal Behavior (exclusive of Animal Learning) and Physiological Psychology. The part to be published next month will consist of citations on Animal Learning. The principal headings used are given on the cover along with page references.

TECHNIQUES

- DAVENPORT, J. W. (Reg. Primate Rsch. Ctr., Univ. of Wisconsin, Madison, Wis. 53706), BENSON, R. W., HAGQUIST, W. W., RANKIN, G. R., & SHELTON, S. E. Computerized animal intelligence testing. *Behavior Research Methods & Instrumentation*, 1972, 4, 67-70.
- VAN GELDER, G. A. (Coll. of Veterinary Med., Iowa State Univ., Ames, Iowa 50010), & MUNSINGER, R. Hardware and software considerations in using a LINC-8 computer in a behavioral toxicology laboratory. *Behavior Research Methods & Instrumentation*, 1972, 4, 101-102.
- METHODS**
- BALDWIN, B. A. (A.R.C. Inst. of Animal Physiol., Babraham, Cambridge, England), SIEGEL, J., & YATES, J. O. A method for recording unit neural activity in unanaesthetized sheep and goats. *Physiology & Behavior*, 1971, 7, 935-938.
- GANFIELD, R. A. (Dept. of Internal Med. & Anatomy, Univ. of Iowa, Iowa City, Iowa 55240), & SMAHA, L. A. Temperature measurements in cats with a chronically implanted sensing device. *Physiology & Behavior*, 1971, 7, 929-930.
- VOGEL, J. R. (Squibb Inst. for Med. Rsch., New Brunswick, N.J. 08900), BEER, B., & CLODY, D. E. A simple and reliable conflict procedure for testing anti-anxiety agents. *Psychopharmacologia (Berlin)*, 1971, 21, 1-7.
- INSTRUMENTATION**
- CAUL, W. F. (Vanderbilt Univ., Nashville, Tenn. 32703), & BUCHANAN, D. C. A restrainer for rat immobilization. *Physiology & Behavior*, 1971, 7, 919-920.
- IKEDA, H. (Dept. of Ophthalmol., Royal Coll. of Surgeons of England, London, England). A microelectrode advancer for intraretinal recording from the cat. *Vision Research*, 1971, 11, 1169-1173.
- KABEŠ, J. (Purkyně Med. Rsch. Inst., Hradec Králové, Czechoslovakia), FINK, Z., & ROTH, Z. A new device for measuring spontaneous motor activity—effects of lysergic acid diethylamide in rats. *Psychopharmacologia (Berlin)*, 1972, 23, 75-85.
- MARTONYI, B. (Psychobiol. & Neurosci. Labs., Univ. of Michigan, Ann Arbor, Mich. 48104), & VALENSTEIN, E. S. On drinkometers: Problems and an inexpensive photocell solution. *Physiology & Behavior*, 1971, 7, 913-914.
- NOAH, J. C. [USAF Sch. of Aerospace Med. (CLNP), Brooks AFB, Tex. 78235]. A chronically implanted liquid delivery system for restrained primates. *Journal of the Experimental Analysis of Behavior*, 1972, 17, 191-192.
- PERETTI, P. O. (St. Procopius Coll., Lisle, Ill. 60532), & HELWIG, L. B. Stereotaxic implantation for small animals: An "eyelet" technique. *Perceptual & Motor Skills*, 1971, 33, 1223-1226.
- REUS, J. F. (Pavlovian Rsch. Lab., VA Hosp., Perry Point, Md. 21902), & CULLEN, J. W. 20-channel drinkometer. *Perceptual & Motor Skills*, 1972, 34, 316-318.
- TAYLOR, E. M. (Arizona State Univ., Tempe, Ariz. 85281). A low-cost, high-capacity maintenance feeding device for primates. *Journal of the Experimental Analysis of Behavior*, 1972, 17, 247-248.
- MANOSEVITZ, M. (Univ. of Texas, Austin, Tex. 78712), & MONTEMAYOR, R. J. Interaction of environmental enrichment and genotype. *Journal of Comparative & Physiological Psychology*, 1972, 79, 67-76.
- SMITH, R. H. (Mary Washington Coll., Fredericksburg, Va. 22401). Wildness and domestication in *Mus musculus*: A behavioral analysis. *Journal of Comparative & Physiological Psychology*, 1972, 79, 22-29.
- Early Experience**
- LEHTINEN, P. (Univ. of Turku, 20520 Turku 52, Finland), HYYPPÄ, M., & LAMPINEN, P. Sexual behaviour of adult rats after a single neonatal injection of reserpine. *Psychopharmacologia (Berlin)*, 1972, 23, 171-179.
- MUGFORD, R. A. (Dept. of Animal Studies, Petfoods Ltd., Melton Mowbray, Leicestershire, England), & NOWELL, N. W. Paternal stimulation during infancy: Effects upon aggression and open-field performance of mice. *Journal of Comparative & Physiological Psychology*, 1972, 79, 30-36.
- PRICE, E. O. (Dept. of Forest Zool., State Univ. of New York Coll. of Forestry, Syracuse, N.Y. 13210). Domestication and early experience effects on escape conditioning in the Norway rat. *Journal of Comparative & Physiological Psychology*, 1972, 79, 51-55.
- WARD, I. L. (Villanova Univ., Villanova, Pa. 19085). Prenatal stress feminizes and demasculinizes the behavior of males. *Science*, 1972, 175, 82-84.
- MOTIVATION AND EMOTION**
- KORIDZE, M. G. (Inst. of Physiol., Georgian Academy of Sci., Tbilisi, USSR), & ONIANI, T. N. Effects of cingulate cortex lesions on emotional behavior and delayed responses in cats. *Acta Neurobiologicae Experimentalis*, 1972, 32, 9-18.
- KRUK, B. (Dept. of Applied Physiol., Exptl. & Clinical Med. Rsch. Ctr., Warsaw, Poland). Effects of emotional factors on physical performance of dogs on the treadmill. *Acta Neurobiologicae Experimentalis*, 1972, 32, 43-54.

ANIMAL BEHAVIOR

- GENERAL**
- MILLER, J. G. (Dept. of Psychiat. & Behav. Sci., Johns Hopkins Univ. Sch. of Med., Baltimore, Md. 21205). Living systems: The organization. *Behavioral Science*, 1972, 17, 1-182.
- Genetics**
- MANOSEVITZ, M. (Univ. of Texas, Austin, Tex. 78712). Behavioral heterosis: Food competition in mice. *Journal of Comparative & Physiological Psychology*, 1972, 79, 46-50.

ZEPELIN, H. (Univ. of Chicago Sleep Lab., 5741 S. Drexel Ave., Chicago, Ill. 60637), WHITEHEAD, W. E., & RECHTSCHAFFEN, A. Aging and sleep in the albino rat. *Behavioral Biology*, 1972, 7, 65-74.

Activity & Exploratory Behavior

BENKERT, O. (Psychiatrische Klinik der Universität München & Max-Planck-Institut für Psychiatrie München, Germany), & KÖHLER, B. Intrahypothalamic and intrastriatal dopamine and norepinephrine injections in relation to motor hyperactivity in rats. *Psychopharmacologia* (Berlin), 1972, 24, 318-325.

MAJ, J. (Inst. of Pharmacol., Polish Academy of Sci., Kraków, Poland), SOWIŃSKA, H., & BARAN, L. The effect of amantadine on motor activity and catalepsy in rats. *Psychopharmacologia* (Berlin), 1972, 24, 296-307.

MUGFORD, R. A. (Dept. of Animal Studies, Petfoods Ltd., Melton Mowbray, Leicestershire, England), & NOWELL, N. W. Paternal stimulation during infancy: Effects upon aggression and open-field performance of mice. *Journal of Comparative & Physiological Psychology*, 1972, 79, 30-36.

SHOOP, C. R. (Dept. of Zool. & Inst. of Environmental Biol., Univ. of Rhode Island, Kingston, R.I. 02881), & DOTY, T. L. Migratory orientation by marbled salamanders (*Ambystoma opacum*) near a breeding area. *Behavioral Biology*, 1972, 7, 131-136.

Locomotor Activity

KABEŠ, J. (Purkyně Med. Rsch. Inst., Hradec Králové, Czechoslovakia), FINK, Z., & ROTH, Z. A new device for measuring spontaneous motor activity—effects of lysergic acid diethylamide in rats. *Psychopharmacologia* (Berlin), 1972, 23, 75-85.

MODIGH, K. (Dept. of Pharmacol., Univ. of Gothenburg, Gothenburg, Sweden). Central and peripheral effects of 5-hydroxytryptophan on motor activity in mice. *Psychopharmacologia* (Berlin), 1972, 23, 48-54.

OKA, T. (Dept. of Pharmacol., Sch. of Med., Keio Univ., Shinjuku-ku, Tokyo, Japan), NOZAKI, M., & HOSOYA, E. The effect of cholinergic antagonists on increases of spontaneous locomotor activity and body weight induced by the administration of morphine to tolerant rats. *Psychopharmacologia* (Berlin), 1972, 23, 231-237.

PRZEGALINSKI, E. (Dept. of Pharmacol., Sch. of Med., Lublin, Poland), & KLEINROK, Z. An

analysis of DOPA-induced locomotor stimulation in mice with inhibited extracerebral decarboxylase. *Psychopharmacologia* (Berlin), 1972, 23, 279-288.

WEISSMAN, A. (Pfizer Inc., Groton, Conn. 06340). Effects of amphetamine on locomotion in mice pretreated with desmethylimipramine, tetrabenazine or both. *Psychopharmacologia* (Berlin), 1972, 23, 152-159.

Hunger and Thirst

CAPALDI, E. D. (Purdue Univ., Lafayette, Ind. 47901). Resistance to extinction in rats as a function of deprivation level and schedule of reward in acquisition. *Journal of Comparative & Physiological Psychology*, 1972, 79, 90-98.

MANOSEVITZ, M. (Univ. of Texas, Austin, Tex. 78712). Behavioral heterosis: Food competition in mice. *Journal of Comparative & Physiological Psychology*, 1972, 79, 46-50.

MARKS, H. E. (Univ. of Georgia, Athens, Ga. 30601), & REMLEY, N. R. The effects of type of lesion and percentage body weight loss on measures of motivated behavior in rats with hypothalamic lesions. *Behavioral Biology*, 1972, 7, 95-111.

SCHAEFFER, R. W. (Auburn Univ., Auburn, Ala. 36830). Schedule-induced alcohol and water intakes in rats on a FFI-60-sec. schedule. *Psychological Reports*, 1972, 30, 291-296.

Sexual & Maternal Behavior

CONNOR, J. (Univ. of Texas, Austin, Tex. 78712). Olfactory control of aggressive and sexual behavior in the mouse (*Mus musculus* L.). *Psychonomic Science*, 1972, 27, 1-3.

DEWSBURY, D. A. (Dept. of Psychol. & Ctr. for Neurobiol. Sci., Univ. of Florida, Gainesville, Fla. 32601), DAVIS, H. N., JR., & JANSEN, P. E. Effects of monoamine oxidase inhibitors on the copulatory behavior of male rats. *Psychopharmacologia* (Berlin), 1972, 24, 209-217.

HART, B. L. (Dept. of Anatomy, Sch. of Veterinary Med., Univ. of California, Davis, Calif. 95616). Sexual reflexes in the male rat after anesthetization of the glans penis. *Behavioral Biology*, 1972, 7, 127-130.

LEHTINEN, P. (Univ. of Turku, 20520 Turku 52, Finland), HYYPPÄ, M., & LAMPINEN, P. Sexual behaviour of adult rats after a single neonatal injection of reserpine. *Psychopharmacologia* (Berlin), 1972, 23, 171-179.

MEYER, C. C. (Quinnipiac Coll., Hamden, Conn. 06518). Inhibition of precocial copulation in the domestic chick by progesterone brain implants. *Journal of Comparative & Physiological Psychology*, 1972, 79, 8-12.

ROWE, F. A. (Illinois Inst. of Tech., Chicago, Ill. 60616), & SMITH, W. E. Effects of peripherally induced anosmia on mating behavior of male mice. *Psychonomic Science*, 1972, 27, 33-34.

Fear & Immobility

DREW, W. G. (Labs. of Behav. Neurophysiol., Dept. of Psychiat., Univ. of Kentucky, Coll. of Med., Lexington, Ky. 40506), MILLER, L. L., & WIKLER, A. Effect of Δ^9 -THC on the open-field activity of the rat. *Psychopharmacologia* (Berlin), 1972, 23, 289-299.

HARRINGTON, G. M. (Univ. of Northern Iowa, Cedar Falls, Iowa 50613). Strain differences in open-field behavior of the rat. *Psychonomic Science*, 1972, 27, 51-53.

KAWASH, G. W. (Univ. of Alberta, Edmonton, Alta., Canada), DIELMAN, T. E., & CATTELL, R. B. Changes in objective measures of fear motivation as a function of laboratory-controlled manipulation. *Psychological Reports*, 1972, 30, 59-63.

SOCIAL & ABNORMAL BEHAVIOR

GREEN, P. C. (Bowling Green State Univ., Bowling Green, Ohio 43403). Masochism in the laboratory rat: An experimental demonstration. *Psychonomic Science*, 1972, 27, 41-44.

HENRY, K. R. (Univ. of California, Davis, Calif. 95616). Pinna reflex thresholds and audiogenic seizures: Developmental changes after acoustic priming. *Journal of Comparative & Physiological Psychology*, 1972, 79, 77-81.

LATANE, B. (Ohio State Univ., 404-C W. 17th Ave., Columbus, Ohio 43210), FRIEDMAN, L., & THOMAS, J. Affiliation in rats under stress. *Psychonomic Science*, 1972, 27, 39-40.

LATANE, B. (Ohio State Univ., 404-C W. 17th Ave., Columbus, Ohio 43210), & WALTON, D. Effects of social deprivation and familiarity with the environment on social attraction in rats. *Psychonomic Science*, 1972, 27, 9-11.

LATANE, B. (Ohio State Univ., 404-C W. 17th Ave., Columbus, Ohio 43210), JOY, V., MELTZER, J., LUBELL, B., & CAPELL, H. Stimulus determinants of social attraction in rats. *Journal of*

Comparative & Physiological Psychology, 1972, 79, 13-21.

Aggression

- CONNOR, J. (Univ. of Texas, Austin, Tex. 78712). Olfactory control of aggressive and sexual behavior in the mouse (*Mus musculus* L.). Psychonomic Science, 1972, 27, 1-3.
- MICZEK, K. A., & GROSSMAN, S. P. (Univ. of Chicago, Chicago, Ill. 60637). Intraspecific aggression in rats. Journal of Comparative & Physiological Psychology, 1972, 79, 37-45.
- MUGFORD, R. A. (Dept. of Animal Studies, Petfoods Ltd., Melton Mowbray, Leicestershire, England), & NOWELL, N. W. Paternal stimulation during infancy: Effects upon aggression and open-field performance of mice. Journal of Comparative & Physiological Psychology, 1972, 79, 30-36.
- STACHNIK, T. (Coll. of Osteopathic Med., Fee Hall, Michigan State Univ., East Lansing, Mich. 48823), FAZZINI, D., PATTERSON, D., & PRATHER, D. Avoidance of conditioned aggression. Psychonomic Science, 1972, 27, 12-14.
- VAN HEMEL, P. E. (Univ. of Maine at Portland-Gorham, Portland, Maine 04103). Aggression as a reinforcer: Operant behavior in the mouse-killing rat. Journal of the Experimental Analysis of Behavior, 1972, 17, 237-245.

SENSORY FUNCTIONS

Vision

- CHOW, K.-L. (Div. of Neurol., Stanford Med. Sch., Palo Alto, Calif. 94720), & LEIMAN, A. L. The photo-sensitive organs of crayfish and brightness learning. Behavioral Biology, 1972, 7, 25-35.
- EASTER, S. S., JR. (Dept. of Zool., Univ. of Michigan, Ann Arbor, Mich. 48104). Pursuit eye movements in goldfish (*Carassius auratus*). Vision Research, 1972, 12, 673-688.
- SLOMIN, V., JR. (Catholic Univ. of America, Washington, D.C. 20017), & PASNAK, R. The effects of visual deprivation on the depth perception of adult and infant rats and adult squirrel monkeys (*Saimiri sciurea*). Vision Research, 1972, 12, 623-626.
- WILSON, M. (Univ. of Connecticut, Storrs, Conn. 06268). Assimilation and contrast effects in visual discrimination by rhesus monkeys. Journal of Experimental Psychology, 1972, 93, 279-282.
- YOSHIDA, M. (Tamano Marine Lab., Shibukawa, Tamano, Okayama, Japan). Detection of a retinol-like

substance and the relative abundance of carotenoids in different tissues of the anthomedusa, *Spirocodon saltatrix*. Vision Research, 1972, 12, 169-182.

Visual Pathways

- ALGVERE, P. (Dept. of Ophthalmol., Karolinska Hosp., Stockholm 60, Sweden), & WESTBECK, S. Human ERG in response to double flashes of light during the course of dark adaptation: A Fourier analysis of the oscillatory potentials. Vision Research, 1972, 12, 195-214.
- BEAZLEY, L. (Neurobiol. Rsch. Unit, Dept. of Physiol., Univ. of Edinburgh, Edinburgh, Scotland), KEATING, M. J., & GAZE, R. M. The appearance, during development, of responses in the optic tectum following visual stimulation of the ipsilateral eye in *Xenopus laevis*. Vision Research, 1972, 12, 407-410.
- BOK, D. (Dept. of Anatomy & Jules Stein Eye Inst., UCLA Sch. of Med., Los Angeles, Calif. 90024), & YOUNG, R. W. The renewal of diffusely distributed protein in the outer segments of rods and cones. Vision Research, 1972, 12, 161-168.
- BOWMAKER, J. K. (Dept. of Zool., Univ. of California, Los Angeles, Calif. 90024). Kundt's rule: The spectral absorbance of visual pigments *in situ* and in solution. Vision Research, 1972, 12, 529-548.
- DEC, K. (Dept. of Neurophysiol., Nencki Inst. of Exptl. Biol., Warsaw, Poland), & HARUTIUNIAN-KOZAK, B. Columnar organization of visually driven neurons in the superior colliculus of the cat. Acta Neurobiologicae Experimentalis, 1972, 32, 35-42.
- KELLER, E. L. (Dept. of Electrical Eng. & Computer Sci., Univ. of California, Berkeley, Calif. 94720), & ROBINSON, D. A. Abducens unit behavior in the monkey during vergence movements. Vision Research, 1972, 12, 369-382.
- LIEGE, B. (Laboratoire de Neurophysiologie, Faculte des Sciences, 86-Poitiers, France), & GALAND, G. Single-unit visual responses in the frog's brain. Vision Research, 1972, 12, 609-622.
- NAKA, K.-I. (Div. of Eng. & Applied Sci. & Div. of Biol., California Inst. of Tech., Pasadena, Calif. 91109). The horizontal cells. Vision Research, 1972, 12, 573-588.
- OYSTER, C. W. (Sch. of Optometry/Med. Ctr., Univ. of Alabama, Birmingham, Ala. 35233), TAKAHASHI, E., & COLLEWIJN,

H. Direction-selective retinal ganglion cells and control of optokinetic nystagmus in the rabbit. Vision Research, 1972, 12, 183-193.

- PARTHE, V. (Dept. of Neurobiol., Instituto Venezolano de Investigaciones Cientificas (IVIC), Apt. 1827, Caracas, Venezuela). Horizontal, bipolar and oligopolar cells in the teleost retina. Vision Research, 1972, 12, 395-406.
- STARR, M. S. (Dept. of Physiol. & Biochem., Inst. of Ophthalmol., Judd St., London W.C.1H 9QS, England), & VOADEN, M. J. The uptake of [¹⁴C]γ-aminobutyric acid by the isolated retina of the rat. Vision Research, 1972, 12, 549-557.
- VOADEN, M. J. (Dept. of Physiol. & Biochem., Inst. of Ophthalmol., Judd St., London W.C.1H 9QS, England), & STARR, M. S. The efflux of radioactive gaba from rat retina *in vitro*. Vision Research, 1972, 12, 559-566.
- WIERSMA, C. A. G. (Div. of Biol., California Inst. of Tech., Pasadena, Calif. 91109), & YORK, B. Properties of the seeing fibers in the rock lobster: Field structure, habituation, attention and distraction. Vision Research, 1972, 12, 627-640.
- WINTERS, R. W. (Univ. of Miami, Coral Gables, Fla. 33124), & HAMASAKI, D. I. Comparison of LGN and optic tract intensity-response functions. Vision Research, 1972, 12, 589-608.

Visual Sensitivity

- BERGER, L. H. (Univ. of Montana, Missoula, Mont. 59801). The effects of real and dark light on single unit activity in *Macaca mulata*. Vision Research, 1972, 12, 455-465.
- BLOUGH, P. M. (Brown Univ., Providence, R.I. 02912), RIGGS, L. A., & SCHAFER, K. L. Photopic spectral sensitivity determined electroretinographically for the pigeon eye. Vision Research, 1972, 12, 477-485.
- OHZU, H., ENOCH, J. M. (Washington Univ. Sch. of Med., Dept. of Ophthalmol., St. Louis, Mo. 63110), & O'HAIR, J. C. Optical modulation by the isolated retina and retinal receptors. Vision Research, 1972, 12, 231-244.
- GRANDA, A. M. (Vision Labs., Univ. of Delaware, Newark, Del. 19711), MAXWELL, J. H., & ZWICK, H. The temporal course of dark adaptation in the turtle, *Pseudemys*, using a behavioral avoidance paradigm. Vision Research, 1972, 12, 653-672.
- ZABLOCKA, T. (Dept. of Biol., Nencki Inst. of Exptl. Biol.,

Warsaw, Poland). Photopositive responses of *Musca domestica* and *Lucilia sp.* to monochromatic lights. *Acta Neurobiologicae Experimentalis*, 1972, 32, 55-64.

ZABŁOCKA, T. (Dept. of Biol., Nencki Inst. of Exptl. Biol., Warsaw, Poland). The relation between the intensity of light and the preference to different wavelengths in *Musca domestica* and *Lucilia sp.* *Acta Neurobiologicae Experimentalis*, 1972, 32, 65-71.

Audition

FISH, J. F. (Ocean Sci. Dept., Nav. Undersea R & D Ctr., San Diego, Calif. 92132), & OFFUTT, G. C. Hearing thresholds from toadfish, *Opsanus tau*, measured in the laboratory and field. *Journal of the Acoustical Society of America*, 1972, 51, 1318-1321.

HENRY, K. R. (Univ. of California, Davis, Calif. 95616). Pinna reflex thresholds and audiogenic seizures: Developmental changes after acoustic priming. *Journal of Comparative & Physiological Psychology*, 1972, 79, 77-81.

HOLLIDAY, D. V. (Tracor, Inc., 2923 Canon St., San Diego, Calif. 92106). Resonance structure in echoes from schooled pelagic fish. *Journal of the Acoustical Society of America*, 1972, 51, 1322-1332.

ROBINSON, T. C. (Massachusetts Inst. of Tech., Cambridge, Mass. 02139), & LELE, P. P. An analysis of lesion development in the brain and in plastics by high-intensity focused ultrasound at low-megahertz frequencies. *Journal of the Acoustical Society of America*, 1972, 51, 1333-1351.

TEAS, D. C. (Communication Sci. Lab., Univ. of Florida, Gainesville, Fla. 32601), KONISHI, T., & NIELSEN, D. W. Electrophysio-

logical studies on the spatial distribution of the crossed olivocochlear bundle along the guinea pig cochlea. *Journal of the Acoustical Society of America*, 1972, 51, 1256-1264.

TRUONG, X. T. (Physiometrics Rsch. Lab., VA Hosp., Houston, Tex. 77031). Extensional wave-propagation characteristics in striated muscle. *Journal of the Acoustical Society of America*, 1972, 51, 1352-1356.

Lower Senses

CONNOR, J. (Univ. of Texas, Austin, Tex. 78712). Olfactory control of aggressive and sexual behavior in the mouse (*Mus musculus* L.). *Psychonomic Science*, 1972, 27, 1-3.

DOB RZECKA, C. (Dept. of Neurophysiol., Nencki Inst. of Exptl. Biol., Warsaw, Poland), KONORSKI, J., STEPIEŃ, L., & SYCHOWA, B. The effects of the removal of the somatosensory areas I and II on left leg-right leg differentiation to tactile stimuli in dogs. *Acta Neurobiologicae Experimentalis*, 1972, 32, 19-33.

COLLERAIN, I., & LUDVIGSON, H. W. (Texas Christian Univ., Ft. Worth, Tex. 76129). Aversion of conspecific odor of frustrative nonreward in rats. *Psychonomic Science*, 1972, 27, 54-56.

MACRIDES, F. (M.I.T., Cambridge, Mass. 02139), & CHOROVER, S. L. Olfactory bulb units: Activity correlated with inhalation cycles and odor quality. *Science*, 1972, 175, 84-87.

ROWE, F. A. (Illinois Inst. of Tech., Chicago, Ill. 60616), & SMITH, W. E. Effects of peripherally induced anosmia on mating behavior of male mice. *Psychonomic Science*, 1972, 27, 33-34.

ŻERNICKI, B. (Dept. of Neurophysiol., Nencki Inst. of Exptl. Biol., Warsaw, Poland). *Acta Neurobiologicae Experimentalis*, 1972, 32, 87-112.

ZURIF, E. B. (Psychol. Rsch., Boston VA Hosp., 150 S. Huntington Ave., Boston, Mass. 02130), & MENDELSON, M. Hemispheric specialization for the perception of speech sounds: The influence of intonation and structure. *Perception & Psychophysics*, 1972, 11, 329-332.

Lesions

ADLER, M. W. (Dept. of Pharmacol., Temple Univ. Sch. of Med., Philadelphia, Pa. 19140). The effect of single and multiple lesions of the limbic system on cerebral excitability. *Psychopharmacologia (Berlin)*, 1972, 24, 218-230.

BRINKMAN, J. (Dept. of Anatomy, Rotterdam Med. Faculty, Rotterdam, The Netherlands), & KUYPERS, H. G. J. M. Splitbrain monkeys: Cerebral control of ipsilateral and contralateral arm, hand, and finger movements. *Science*, 1972, 176, 536-539.

COOPER, W. E., JR. (Div. of Biol., Kansas State Univ., Manhattan, Kans. 66502), & VAN HOESEN, G. W. Stria medullaris-habenular lesions and gnawing behavior in rats. *Journal of Comparative & Physiological Psychology*, 1972, 79, 151-155.

MICZEK, K. A., & GROSSMAN, S. P. (Univ. of Chicago, Chicago, Ill. 60637). Effects of septal lesions on inter- and intraspecies aggression in rats. *Journal of Comparative & Physiological Psychology*, 1972, 79, 37-45.

HOREL, J. A. (Dept. of Anatomy, Coll. of Med., State Univ. of New York Upstate Med. Ctr., Syracuse, N.Y. 13210), & KEATING, E. G. Recovery from a partial Klüver-Bucy syndrome in the monkey produced by disconnection. *Journal of Comparative & Physiological Psychology*, 1972, 79, 105-114.

MARKS, H. E. (Univ. of Georgia, Athens, Ga. 30601), & REMLEY, N. R. The effects of type of lesion and percentage body weight loss on measures of motivated behavior in rats with hypothalamic lesions. *Behavioral Biology*, 1972, 7, 95-111.

ROBINSON, T. C. (M.I.T., Cambridge, Mass. 02139), & LELE, P. P. An analysis of lesion development in the brain and in plastics by high-intensity focused ultrasound at low-megahertz frequencies. *Journal of the Acoustical Society of America*, 1972, 51, 1333-1351.

ROSENZWEIG, M. R. (Univ. of

PHYSIOLOGICAL PSYCHOLOGY

BRAIN FUNCTIONS

ABRAHAM, F. D. (Brain Rsch. Inst., Univ. of California, Los Angeles, Calif. 90024), PALKA, J., PEEKE, H. V. S., & WILLOWS, A. O. D. Model neural systems and strategies for the neurobiology of learning. *Behavioral Biology*, 1972, 7, 1-24.

KINSBOURNE, M. (Depts. of Pediatrics & Neurol., Duke Univ. Med. Ctr., Durham, N.C. 27710). Eye and head turning indicates cerebral lateralization. *Science*, 1972, 176, 539-541.

KRIVANEK, J. (California State Coll., Fullerton, Calif. 92631), & BUTTNER, N. Behavior modification by trained and

untrained brain homogenate injections. *Psychological Reports*, 1972, 30, 115-118.

McKEEVER, W. F. (Bowling Green State Univ., Bowling Green, Ohio 43403), & GILL, K. M. Interhemispheric transfer time for visual stimulus information varies as a function of the retinal locus of stimulation. *Psychonomic Science*, 1972, 26, 308-310.

SCHULMAN, A. H. (Virginia Polytech. Inst. & State Univ., Blacksburg, Va. 24061). Transfer of behavior controlled by an imprinted stimulus via brain homogenate injections in turkeys. *Psychonomic Science*, 1972, 27, 48-50.

- California, Berkeley, Calif. 94720), BENNETT, E. L., & DIAMOND, M. C. Cerebral effects of differential experience in hypophysectomized rats. *Journal of Comparative & Physiological Psychology*, 1972, 79, 56-66.
- SOEDETZ, F. J. (Dept. of Exptl. Psychol., Walter Reed Army Inst. of Rsch., Washington, D.C. 20012). Sidman avoidance performance and response suppression in rats with septal lesions. *Journal of Comparative & Physiological Psychology*, 1972, 79, 142-150.
- TIGNER, J. C. (Univ. of Oregon, Eugene, Oreg. 97403). Impairment of one-way active avoidance in rats with habenular or dorsomedial thalamic lesions. *Psychonomic Science*, 1972, 27, 7-8.
- WARBURTON, D. M. (Univ. of Reading, Reading, England). Effects of atropine sulphate on repeated extinction performance in hippocampectomized rats. *Psychopharmacologia (Berlin)*, 1972, 23, 348-356.
- Cortex*
- DOBRZECKA, C. (Dept. of Neurophysiol., Nencki Inst. of Exptl. Biol., Warsaw, Poland), KONORSKI, J., STEPIEN, L., & SYCHOWA, B. The effects of the removal of the somatosensory areas I and II on left leg-right leg differentiation to tactile stimuli in dogs. *Acta Neurobiologicae Experimentalis*, 1972, 32, 19-33.
- KORIDZE, M. G. (Inst. of Physiol., Georgian Academy of Sci., Tbilisi, USSR), & ONIANI, T. N. Effects of cingulate cortex lesions on emotional behavior and delayed responses in cats. *Acta Neurobiologicae Experimentalis*, 1972, 32, 9-18.
- TUKASZEWSKA, I. (Dept. of Neurophysiol., Nencki Inst. of Exptl. Biol., Warsaw, Poland). Delayed-response improvement in frontal rats after electroconvulsive shock treatments and spaciof trials. *Acta Neurobiologicae Experimentalis*, 1972, 32, 1-8.
- Stimulation*
- DEADWYLER, S. A. (State Univ. of New York, Stony Brook, N.Y. 11790), & WYERS, E. J. Disruption of habituation by caudate nuclear stimulation in the rat. *Behavioral Biology*, 1972, 7, 55-64.
- DOMINO, E. F. (Michigan Neuropsychopharmacol. Rsch. Prog., Dept. of Pharmacol., Univ. of Michigan, Ann Arbor, Mich. 48104), & OLDS, M. E. Effects of *d*-amphetamine, scopolamine, chloridiazepoxide and diphenylhydantoin on self-stimulation behavior and brain acetylcholine. *Psychopharmacologia (Berlin)*, 1972, 23, 1-16.
- FAREL, P. B. (Dept. of Psychobiol., Univ. of California, Irvine, Calif. 92664), & THOMPSON, R. F. Habituation and dishabituation to the dorsal root stimulation in the isolated frog spinal cord. *Behavioral Biology*, 1972, 7, 37-45.
- KESNER, R. P. (Ctr. for Advanced Study in the Behav. Sci., Stanford, Calif. 94305), & CONNER, H. S. Independence of short- and long-term memory: A neural system analysis. *Science*, 1972, 176, 432-434.
- MAYER, D. J. (Univ. of California, Los Angeles, Calif. 90024), WOLFE, T. L., AKIL, H., CARDER, B., & LIEBESKIND, J. C. Analgesia from electrical stimulation in the brainstem of the rat. *Science*, 1971, 174, 1351-1354.
- WAUQUIER, A. (Dept. of Pharmacol. & Med. Electronic Dept., Janssen Pharmaceutica, Rsch. Lab., B-2340 Beerse, Belgium), NIEMEGERES, C. J. E., & GEIVERS, H. A. Intracranial self-stimulation in rats as a function of various stimulus parameters: I. An empirical study with monopolar electrodes in the medial forebrain bundle. *Psychopharmacologia (Berlin)*, 1972, 23, 238-260.
- WHISHAW, I. Q. (Univ. of Lethbridge, Lethbridge, Alta., Canada), BLAND, B. H., & VANDERWOLF, C. H. Hippocampal activity, behavior, self-stimulation, and heart rate during electrical stimulation of the lateral hypothalamus. *Journal of Comparative & Physiological Psychology*, 1972, 79, 115-127.
- Electrical Activity*
- GOLDRING, S. (Div. of Neurol. Surgery, Washington Univ. Sch. of Med., St. Louis, Mo. 63110), & RATCHESON, R. Human motor cortex: Sensory input data from single neuron recordings. *Science*, 1972, 175, 1493-1495.
- EEG*
- BLACK, A. H. (McMaster Univ., Hamilton, Ont., Canada), & YOUNG, G. A. Electrical activity of the hippocampus and cortex in dogs operantly trained to move and to hold still. *Journal of Comparative & Physiological Psychology*, 1972, 79, 128-141.
- GALE, A. (Univ. of Exeter, Exeter, Devon, England), BRAMLEY, P., LUCAS, B., & CHRISTIE, B. Differential effect of visual and auditory complexity on the EEG: Negative hedonic value as a crucial variable? *Psychonomic Science*, 1972, 17, 21-24.
- HATAYAMA, T. (Tohoku Gakuin Univ., Sendai, Japan), & KOMATSU, H. Studies on sensory overload: III. Part 2. Results of polygraphic records. *Tohoku Psychologica Folia*, 1971, Tomus xxx, 5-9.
- LANDFIELD, P. W. (Dept. of Psychobiol., Sch. of Biol. Sci., Univ. of California, Irvine, Calif. 92664), McGAUGH, J. L., & TUSA, R. J. Theta rhythm: A temporal correlate of memory storage processes in the rat. *Science*, 1972, 175, 87-89.
- STENN, P. G. (Lafayette Clinic, Psychol. Div., Detroit, Mich. 48207), KLAIBER, E. L., VOGEL, W., & BROVERMAN, D. M. Testosterone effects upon photic stimulation of the electroencephalogram (EEG) and mental performance of humans. *Perceptual & Motor Skills*, 1972, 34, 371-378.
- DELSE, F. C., MARSH, G. R., & THOMPSON, L. W. (Box 3003, Duke Univ. Med. Ctr., Durham, N.C. 27706). CNV correlates of task difficulty and accuracy of pitch discrimination. *Psychophysiology*, 1972, 9, 53-62.
- WHITMORE, D. G. (Univ. of Vermont, Burlington, Vt. 05401), & GORDON, L. R. Toward the on-line analysis of raw bioelectric signals: The case of EEG. *Behavior Research Methods & Instrumentation*, 1972, 4, 98.
- Evoked Potentials*
- BAUER, J. W. (Univ. of California, San Diego, La Jolla, Calif. 92037), SQUIRES, K. C., & LINDSAY, P. H. Computer signal detection by monitoring auditory evoked potentials. *Perception & Psychophysics*, 1972, 11, 301-308.
- BEGLEITER, H. (Dept. of Psychiat., Downstate Med. Ctr., State Univ. of New York, Brooklyn, N.Y. 11203), BRANCHEY, M. H., & KISSIN, B. Effects of ethanol on evoked potentials in the rat. *Behavioral Biology*, 1972, 7, 137-142.
- CHASE, R. (Dept. of Biol., McGill Univ., Montreal 110, P.Q., Canada), & KALIL, R. E. Suppression of visual evoked responses to flashes and pattern shifts during voluntary saccades. *Vision Research*, 1972, 12, 215-220.
- FLEMING, D. E. (Brigham Young Univ., Provo, Utah 84601), WILSON, C. E., & MERRILL, H. K. Photic intermittency, pupillary diameter, and the visually evoked potential. *Vision Research*, 1972, 12, 487-493.
- PECK, C. K. (Brain Rsch. Inst., Univ. of California, Los Angeles, Calif. 90024), & LINDSLEY, D. B. Average evoked potential correlates

of two-flash perceptual discrimination in cats. *Vision Research*, 1972, 12, 641-652.

Metabolism

BEER, B. (Squibb Inst. for Med. Rsch., New Brunswick, N.J. 08903), CHASIN, M., CLODY, D. E., VOGEL, J. R., & HOROVITZ, Z. P. Cyclic adenosine monophosphate phosphodiesterase in brain: Effect on anxiety. *Science*, 1972, 176, 428-430.

DÍAZ, J.-L. (Depts. of Med. Chem. & Psychiat., Univ. of Helsinki, Helsinki, Finland), & HUTTUNEN, M. O. Altered metabolism of serotonin in the brain of the rat after chronic ingestion of d-amphetamine. *Psychopharmacologia (Berlin)*, 1972, 23, 365-372.

DISMUKES, R. K. (Biophysics Dept., Pennsylvania State Univ., University Park, Pa. 16802), & RAKE, A. V. Involvement of biogenic amines in memory formation. *Psychopharmacologia (Berlin)*, 1972, 23, 17-25.

IZQUIERDO, I. (Departamento de Farmacología, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Córdoba, Argentina), & ORSINGER, O. A. A physiological difference in the hippocampus of rats with a low inborn learning ability. *Psychopharmacologia (Berlin)*, 1972, 23, 386-396.

LOLLEY, R. N. (Neurochem. Labs., VA Hosp., Sepulveda, Calif. 91343), & RACZ, E. Changes in levels of ATPase activity in developing retinae of normal (DBA) and mutant (C3H) mice. *Vision Research*, 1972, 12, 567-571.

PALMER, G. C. (Dept. of Pharmacol. & Anatomy, Sch. of Med., Univ. of New Mexico, Albuquerque, N. Mex. 87106), ROBISON, G. A., MANIAN, A. A., & SULSER, F. Modification by psychotropic drugs of the cyclic AMP response to norepinephrine in the rat brain *in vitro*. *Psychopharmacologia (Berlin)*, 1972, 23, 201-211.

SEGAL, D. S. (Dept. of Psychiat., Sch. of Med., Univ. of California, San Diego, La Jolla, Calif. 92037), KUCZENSKI, R. T., & MANDELL, A. J. Strain differences in behavior and brain tyrosine hydroxylase activity. *Behavioral Biology*, 1972, 7, 75-81.

TONGE, S. R. (Sch. of Pharmacy, The Polytechnic, Byrom St., Liverpool 3, U.K.), & LEONARD, B. E. Interaction of phencyclidine with drugs affecting noradrenaline metabolism in the rat brain. *Psychopharmacologia (Berlin)*, 1972, 23, 86-90.

PHYSIOLOGICAL EFFECTS

BARCLAY, A. M. (Michigan State Univ., East Lansing, Mich. 48823), & LITTLE, D. M. Urinary acid phosphatase secretion under different arousal conditions. *Psychophysiology*, 1972, 9, 69-77.

DAVIES, C. T. M. (M.R.C. Environmental Physiol. Unit, London Sch. of Hygiene & Tropical Med., Univ. of London, Keppel St., London, England), & CROCKFORD, G. W. The kinetics of recovery oxygen intake and blood lactic acid concentration measured to a baseline of mild steady work. *Ergonomics*, 1971, 14, 721-731.

LEWIS, D. J. (Univ. of Southern California, Los Angeles, Calif. 90007), JACKSON, F., MILLER, R. R., & MISANIN, J. R. The relation between rectal and brain temperatures following hypothermia. *Psychonomic Science*, 1972, 27, 29-30.

Hormonal Effects

MEYER, C. C. (Quinnipiac Coll., Hamden, Conn. 06518). Inhibition of precocial copulation in the domestic chick by progesterone brain implants. *Journal of Comparative & Physiological Psychology*, 1972, 79, 8-12.

STENN, P. G. (Lafayette Clinic, Psychol. Div., Detroit, Mich. 48207), KLAIBER, E. L., VOGEL, W., & BROVERMAN, D. M. Testosterone effects upon photic stimulation of the electroencephalogram (EEG) and mental performance of humans. *Perceptual & Motor Skills*, 1972, 34, 371-378.

WARD, I. L. (Villanova Univ., Villanova, Pa. 19085). Prenatal stress feminizes and demasculinizes the behavior of males. *Science*, 1972, 175, 82-84.

Drug Effects

BANERJEE, U. (Dept. of Pharmacol., Faculty of Med., Univ. of Malaya, Kuala Lumpur, Malaysia). Acquisition of conditioned avoidance response in rats under the influence of addicting drugs. *Psychopharmacologia (Berlin)*, 1971, 22, 133-143.

BEER, B. (Squibb Inst. for Med. Rsch., New Brunswick, N.J. 08903), CHASIN, M., CLODY, D. E., VOGEL, J. R., & HOROVITZ, Z. P. Cyclic adenosine monophosphate phosphodiesterase in brain: Effect on anxiety. *Science*, 1972, 176, 428-430.

DANIELS, D. (Univ. of Exeter, Washington Singer Labs., Exeter, Devon, England). Effects of

acetoxycycloheximide on appetitive learning and memory. *Quarterly Journal of Experimental Psychology*, 1972, 24, 102-114.

DAVIS, K. V. (Inst. for Juvenile Rsch., Dept. of Mental Health, Chicago, Ill. 60600). The effect of drugs on stereotyped and nonstereotyped operant behaviors in retardates. *Psychopharmacologia (Berlin)*, 1971, 22, 195-213.

DOMINO, E. F. (Michigan Neuropsychopharmacol. Rsch. Program, Dept. of Pharmacol., Univ. of Michigan, Ann Arbor, Mich. 48104), & OLDS, M. E. Effects of d-amphetamine, scopolamine, chlordiazepoxide and diphenhydantoin on self-stimulation behavior and brain acetylcholine. *Psychopharmacologia (Berlin)*, 1972, 23, 1-16.

ERICKSON, C. K. (Dept. of Pharmacol. & Toxicol., Sch. of Pharmacy, Univ. of Kansas, Lawrence, Kans. 66044). Studies on the mechanism of avoidance facilitation by nicotine. *Psychopharmacologia (Berlin)*, 1971, 22, 357-368.

FINK, M. (Div. of Biol. Psychiat., Dept. of Psychiat., New York Med. Coll., New York, N.Y. 10029), SHAPIRO, D. M., & ITIL, T. M. EEG profiles of fenfluramine, amobarbital and dextroamphetamine in normal volunteers. *Psychopharmacologia (Berlin)*, 1971, 22, 369-383.

FRANKENHAEUSER, M. (Psychol. Labs., Univ. of Stockholm, Stockholm, Sweden), MYRSTEN, A.-L., POST, B., & JOHANSSON, G. Behavioural and physiological effects of cigarette smoking in a monotonous situation. *Psychopharmacologia (Berlin)*, 1971, 22, 1-7.

GRAY, J. A. (Rockefeller Univ., New York, N.Y. 10021), & ARAUJO-SILVA, M. T. Joint effects of medial septal lesions and amylobarbitone injections on resistance to extinction in the rat. *Psychopharmacologia (Berlin)*, 1971, 22, 8-22.

GREENWOOD, D. T. (Imperial Chem. Industries Ltd., Pharmaceuticals Div., Mereside, Alderley Park, Macclesfield, Cheshire, U.K.), & SOMMERVILLE, A. R. The effect of immunosympathectomy on the responses of the mouse to reserpine and various antidepressant and stimulant drugs. *Psychopharmacologia (Berlin)*, 1972, 24, 231-237.

HIRSCHHORN, I. D. (Dept. of Pharmacol., Sch. of Med., State Univ. of New York, Buffalo, N.Y. 14214), & WINTER, J. C. Mescaline and lysergic acid diethylamide (LSD) as discriminative stimuli.

- Psychopharmacologia (Berlin), 1971, 22, 64-71.
- HOLTZMAN, S. G. (Emory Univ., Dept. of Pharmacol., Atlanta, Ga. 30322), & JEWETT, R. E. Interactions of morphine and nalorphine with physostigmine on operant behavior in the rat. *Psychopharmacologia* (Berlin), 1971, 22, 384-395.
- HILL, H. E., JONES, B. E. (NIMH, Addiction Rsch. Ctr., Lexington, Ky. 40507), & BELL, E. C. State dependent control of discrimination by morphine and pentobarbital. *Psychopharmacologia* (Berlin), 1971, 22, 305-313.
- KABEŠ, J. (Purkyně Med. Rsch. Inst., Hradec Králové, Czechoslovakia), FINK, Z., & ROTH, Z. A new device for measuring spontaneous motor activity—effects of lysergic acid diethylamide in rats. *Psychopharmacologia* (Berlin), 1972, 23, 75-85.
- LAL, H. (Dept. of Pharmacol. & Toxicol., Univ. of Rhode Island, Coll. of Pharmacy, Kingston, R.I. 02881), O'BRIEN, J., & PURI, S. K. Morphine-withdrawal aggression: Sensitization by amphetamines. *Psychopharmacologia* (Berlin), 1971, 22, 217-223.
- LEONARD, B. E. (Pharmacol. Dept., I.C.I. Ltd., Pharmaceuticals Div., Alderley Park, Nr. Macclesfield, Cheshire, England), & STONIER, P. D. The effect of some hallucinogenic and other drugs on the temperature of reserpinized mice. *Psychopharmacologia* (Berlin), 1971, 22, 126-132.
- LOIZZO, A. (Laboratori de Chimica Terapeutica, Istituto Superiore di Sanità, Rome, Italy), de CAROLIS, A. S., & LONGO, V. G. Studies on the central effects of bulbocapnine. *Psychopharmacologia* (Berlin), 1971, 22, 234-249.
- MODIGH, K. (Dept. of Pharmacol., Univ. of Gothenburg, Gothenburg, Sweden). Central and peripheral effects of 5-hydroxytryptophan on motor activity in mice. *Psychopharmacologia* (Berlin), 1972, 23, 48-54.
- OISHI, H. (Tokyo Univ. of Ed., Tokyo, Japan), IWAHARA, S., YANG, K.-M., & YOGI, A. Effects of chlordiazepoxide on passive avoidance responses in rats. *Psychopharmacologia* (Berlin), 1972, 23, 373-385.
- PALMER, G. C. (Dept. of Pharmacol. & Anatomy, Sch. of Med., Univ. of New Mexico, Albuquerque, N. Mex. 87106), ROBISON, G. A., MANIAN, A. A., & SULSER, F. Modification by psychotropic drugs of norepinephrine in the rat brain *in vitro*. *Psychopharmacologia* (Berlin), 1972, 23, 201-211.
- ROSS, N. (Departamento de Farmacología y Terapéutica, Hospital de Clínicas, Montevideo, Uruguay), & MONTI, J. M. Effects of haloperidol, trifluoperidol, nitrazepam and chlordiazepoxide upon conditioned midbrain behavioral responses. *Psychopharmacologia* (Berlin), 1971, 22, 31-44.
- STOLK, J. M. (Dept. of Psychiat., Stanford Univ. Sch. of Med., Stanford, Calif. 94305), CONNER, R. L., & BARCHAS, J. D. Rubidium-induced increase in shock-elicited aggression in rats. *Psychopharmacologia* (Berlin), 1971, 22, 250-260.
- THOMPSON, D. M. (Dept. of Pharmacol., Georgetown Univ. Schs. of Med. & Dentistry, Washington, D.C. 20007). Enhancement of progressive-ratio performance by chlordiazepoxide and phenobarbital. *Journal of the Experimental Analysis of Behavior*, 1972, 17, 287-292.
- TONGE, S. R. (Sch. of Pharmacy, The Polytechnic, Byrom St., Liverpool 3, U.K.), & LEONARD, B. E. Interaction of phencyclidine with drugs affecting noradrenaline metabolism in the rat brain. *Psychopharmacologia* (Berlin), 1972, 23, 86-90.
- VOGEL, W. H. (Dept. of Pharmacol., Jefferson Med. Coll., Philadelphia, Pa. 19107), CARAPPELLOTTI, R. A., EVANS, B. D., & MARDEROSIAN, D. A. Physiological disposition of isoergine [from *Argyreia nervosa* (Burm. f.) Bojer Convolvulaceae] and its effect on the conditioned avoidance response in rats. *Psychopharmacologia* (Berlin), 1972, 24, 238-242.
- WILSON, M. C. (Dept. of Pharmacol., Sch. of Pharmacy, Univ. of Mississippi, Oxford, Miss. 38655), HITOMI, M., & SCHUSTER, C. R. Psychomotor stimulant self administration as a function of dosage per injection in the Rhesus monkey. *Psychopharmacologia* (Berlin), 1971, 22, 271-281.
- WINOCUR, G. (Depts. of Psychol. & Psychiat. Rsch., Univ. of Saskatchewan, Saskatoon, Canada), BAGCHI, S. P., & HUBBARD, P. Effects of bufotenine and p-chlorophenylalanine on stress induced behaviour. *Psychopharmacologia* (Berlin), 1971, 22, 100-110.
- WRAY, S. R. (Dept. of Psychol., Univ. of Hull, Hull, England), & COWAN, A. The effects of naloxone, chlorpromazine, and haloperidol pretreatment on levallorphan-induced disruption of rats' operant behaviour. *Psychopharmacologia* (Berlin), 1971, 22, 261-270.
- Alcohol*
- BEGLEITER, H. (Dept. of Psychiat., Downstate Med. Ctr., State Univ. of New York, Brooklyn, N.Y. 11203), BRANCHEY, M. H., & KISSIN, B. Effects of ethanol on evoked potentials in the rat. *Behavioral Biology*, 1972, 7, 137-142.
- JONES, B. M. (Ctr. for Alcohol-Related Studies, Univ. of Oklahoma Health Sci. Ctr., Oklahoma City, Okla. 73190). Cognitive performance during acute alcohol intoxication: The effects of prior task experience on performance. *Psychonomic Science*, 1972, 26, 327-329.
- JONES, B. M. (Ctr. for Alcohol-Related Studies, Dept. of Psychiat. & Behav. Sci., Univ. of Oklahoma Med. Ctr., Oklahoma City, Okla. 73100), & VEGA, A. Cognitive performance measured on the ascending and descending limb of the blood alcohol curve. *Psychopharmacologia* (Berlin), 1972, 23, 99-114.
- Neurotransmitters*
- AHLENIUS, S. (Dept. of Pharmacol., Univ. of Gothenburg, Gothenburg, Sweden), & ENGEL, J. Effects of a dopamine (DA)- β -hydroxylase inhibitor on timing behaviour. *Psychopharmacologia* (Berlin), 1972, 24, 243-246.
- BENKERT, O. (Max-Planck-Institut für Psychiatrie, Neurochemische Abteilung und Poliklinik, Munich, Germany), CROMBACH, G., & KOCKOTT, G. Effect of L-DOPA on sexually impotent patients. *Psychopharmacologia* (Berlin), 1972, 23, 91-95.
- BENKERT, O. (Psychiatrische Klinik der Universität München and Max-Planck-Institut für Psychiatrie, Munich, Germany), & KÖHLER, B. Intrahypothalamic and intrastriatal dopamine and norepinephrine injections in relation to motor hyperactivity in rats. *Psychopharmacologia* (Berlin), 1972, 24, 318-325.
- DOWNS, D. (Univ. of Michigan, Ann Arbor, Mich. 48104), CARDOZO, C., SCHNEIDERMAN, N., YEHLER, A. L., VAN DER CAR, D. H., & ZWILLING, G. Central effects of atropine upon aversive classical conditioning in rabbits. *Psychopharmacologia* (Berlin), 1972, 23, 319-333.
- FLOREZ, J. (Departamento de Farmacología, Facultad de Medicina, Universidad de La Laguna, La Laguna, Tenerife, Spain), DELGADO, G., & ARMILLO, J. A. Adrenergic and serotonergic

- mechanisms in morphine-induced respiratory depression. *Psychopharmacologia* (Berlin), 1972, 24, 258-274.
- GOLDBERG, M. E. (Dept. of Pharmacol., Warner-Lambert Rsch. Inst., Morris Plains, N.J. 07950), SLEDGE, K., ROBICHAUD, R. C., & DUBINSKY, B. A comparative study of the behavioral effects of scopolamine and 4-(1-naphthylvinyl) pyridine hydrochloride (NVP), an inhibitor of choline acetyltransferase. *Psychopharmacologia* (Berlin), 1972, 23, 34-47.
- KAMAT, U. G. (Dept. of Pharmacol., Seth G. S. Med. Coll., Parel, Bombay-12, India), PRADHAN, R. J., & SHETH, U. K. Potentiation of a non-narcotic analgesic, dipyrone, by cholinomimetic drugs. *Psychopharmacologia* (Berlin), 1972, 23, 180-186.
- KELLOGG, C. (Dept. of Pharmacol., Univ. of Gothenburg, Gothenburg, Sweden), & LUNDBORG, P. Ontogenic variations in responses to L-DOPA and monoamine receptor-stimulating agents. *Psychopharmacologia* (Berlin), 1972, 23, 187-200.
- MAJ, J. (Inst. of Pharmacol., Polish Academy of Sci., Cracov, Poland), GRABOWSKA, M., & MOGILNICKA, E. The effect of L-DOPA on brain catecholamines and motility in rats. *Psychopharmacologia* (Berlin), 1971, 22, 162-171.
- MERLO, A. B. (Cátedra de Farmacología Experimental, Facultad de Farmacia y Bioquímica, Junin 956, Buenos Aires, Argentina), & IZQUIERDO, J. A. Effect of post-trial injection of beta adrenergic blocking agents on a conditioned reflex in rats. *Psychopharmacologia* (Berlin), 1971, 22, 181-186.
- PRZEGALINŃSKI, E. (Dept. of Pharmacol., Sch. of Med., Lublin, Poland), & KLEINROK, Z. An analysis of DOPA-induced locomotor stimulation in mice with inhibited extracerebral decarboxylase. *Psychopharmacologia* (Berlin), 1972, 23, 279-288.
- WARBURTON, D. M. (Univ. of Reading, Reading, England). Effects of atropine sulphate on repeated extinction performance in hippocampectomized rats. *Psychopharmacologia* (Berlin), 1972, 23, 348-356.
- Opiates*
- HOFFMEISTER, F. (Institut für Pharmakologie der Farbenfabriken Bayer AG, Wuppertal-Elberfeld, Germany), & SCHLICHTING, U. U. Reinforcing properties of some opiates and opioids in rhesus monkeys with histories of cocaine and codeine self-administration. *Psychopharmacologia* (Berlin), 1972, 23, 55-74.
- McKENZIE, G. M. (Dept. of Pharmacol., Wellcome Rsch. Labs., Burroughs Wellcome Co., Rsch. Triangle Park, N.C. 27709). Role of the tuberculum olfactorium in stereotyped behaviour induced by apomorphine in the rat. *Psychopharmacologia* (Berlin), 1972, 23, 212-219.
- OKA, T. (Dept. of Pharmacol., Sch. of Med., Keio Univ., Shinjuku-ku, Tokyo, Japan), NOZAKI, M., & HOSOYA, E. The effect of cholinergic antagonists on increases of spontaneous locomotor activity and body weight induced by the administration of morphine to tolerant rats. *Psychopharmacologia* (Berlin), 1972, 23, 231-237.
- Stimulants*
- BAUER, R. H. (Univ. of Houston, Houston, Tex. 77004). Twenty-four hour proactive facilitation of avoidance and discrimination by pentylenetetrazol. *Psychopharmacologia* (Berlin), 1972, 24, 275-295.
- CAPPELL, H. (Addiction Rsch. Fdtn., Toronto, Ont., Canada), & LeBLANC, A. E. Conditioned aversion to saccharin by single administrations of mescaline and d-amphetamine. *Psychopharmacologia* (Berlin), 1971, 22, 352-356.
- COHEN, N. J. (McGill Univ., Montreal, Ont., Canada), DOUGLAS, V. I., & MORGENSTERN, G. The effect of methylphenidate on attentive behavior and autonomic activity in hyperactive children. *Psychopharmacologia* (Berlin), 1971, 22, 282-294.
- DEWSBURY, D. A. (Dept. of Psychol. & Ctr. for Neurobiol. Sci., Univ. of Florida, Gainesville, Fla. 32601), DAVIS, H. N., JR., & JANSEN, P. E. Effects of monoamine oxidase inhibitors on the copulatory behavior of male rats. *Psychopharmacologia* (Berlin), 1972, 24, 209-217.
- DIAZ, J.-L. (Depts. of Med. Chem. & Psychiat., Univ. of Helsinki, Helsinki, Finland), & HUTTUNEN, M. O. Altered metabolism of serotonin in the brain of the rat after chronic ingestion of d-amphetamine. *Psychopharmacologia* (Berlin), 1972, 23, 365-372.
- HOLTZMAN, S. G. (Dept. of Pharmacol., Emory Univ., Atlanta, Ga. 30322), & JEWETT, R. E. The role of brain norepinephrine in the anorexic effects of dextroamphetamine and monoamine oxidase inhibitors in the rat. *Psychopharmacologia* (Berlin), 1971, 22, 151-161.
- LYON, M. (Central Lab., Sect. Hans Hosp., Roskilde, Denmark), & RANDRUP, A. The dose-response effect of amphetamine upon avoidance behaviour in the rat seen as a function of increasing stereotypy. *Psychopharmacologia* (Berlin), 1972, 23, 334-347.
- MAJ, J. (Inst. of Pharmacol., Polish Academy of Sci., Kraków, Poland), SOWINSKA, H., & BARAN, L. The effect of amantadine on motor activity and catalepsy in rats. *Psychopharmacologia* (Berlin), 1972, 24, 296-307.
- McCARROLL, J. E. (Biomed. Rsch. Lab., Edgewood Arsenal, Md. 21010), & KORBEL, S. F. Magnesium pemoline: Effects of a broad range of doses on water maze performance. *Psychopharmacologia* (Berlin), 1972, 24, 308-317.
- MOLINENGO, L. (Chair of Pharmacol. & Pharmacognosy, Modena, Italy), & RICCI-GAMALERO, S. The action of imipramine, amitriptyline, doxepin and butriptyline in an operant conditioning schedule. *Psychopharmacologia* (Berlin), 1972, 24, 247-257.
- SCHROLD, J. (Rsch. Labs., A/S Ferrosan, DK-2860 Søborg, Denmark). Behavioural effects of d-amphetamine alone and in combination with antidepressants, antihistamines or other psychotropic drugs in young chicks. *Psychopharmacologia* (Berlin), 1972, 23, 115-124.
- SETHY, V. H. (Dept. of Pharmacol., Yale Univ., Sch. of Med., New Haven, Conn. 06510), & WINTER, J. C. Effects of yohimbine and mescaline on punished behavior in the rat. *Psychopharmacologia* (Berlin), 1972, 23, 160-166.
- SPARBER, S. B. (Dept. of Pharmacol. & Psychiat. Rsch. Unit, Dept. of Psychiat., Univ. of Minnesota, Minneapolis, Minn. 55455), & TILSON, H. A. Tolerance and cross-tolerance to mescaline and amphetamine as a function of central and peripheral administration. *Psychopharmacologia* (Berlin), 1972, 23, 220-230.
- STERN, W. C. (Worcester Fdtn. for Exptl. Biol., Shrewsbury, Mass. 01545), & HARTMANN, E. L. Reduced amphetamine lethality following chronic stress. *Psychopharmacologia* (Berlin), 1972, 23, 167-170.
- WEISSMAN, A. (Pfizer Inc., Groton, Conn. 06340). Effects of amphetamine on locomotion in mice pretreated with desmethylimipramine, tetrabenazine

or both. *Psychopharmacologia* (Berlin), 1972, 23, 152-159.

Tranquilizers

- DINSMOOR, J. A. (Indiana Univ., Bloomington, Ind. 47401), BONBRIGHT, J. C., JR., & LILIE, D. R. A controlled comparison of drug effects on escape from conditioned aversive stimulation ("anxiety") and from continuous shock. *Psychopharmacologia* (Berlin), 1971, 22, 323-332.
- LEHTINEN, P. (Univ. of Turku, 20520 Turku 52, Finland), HYYPPÄ, M., & LAMPINEN, P. Sexual behaviour of adult rats after a single neonatal injection of reserpine. *Psychopharmacologia* (Berlin), 1972, 23, 171-179.
- LIPPER, S. (Div. of Psychiat., Boston Univ. Sch. of Med., Boston, Mass 02215), & KORNETSKY, C. Effect of chlorpromazine on conditioned avoidance as a function of CS-US interval length. *Psychopharmacologia* (Berlin), 1971, 22, 144-150.
- SCHOOLER, N. R. (Psychopharmacol. Rsch. Branch, Natl. Inst. of Mental Health, Rockville, Md. 20852), & GOLDBERG, S. C. Performance tests in a study of phenothiazines in schizophrenia: Caveats and conclusions. *Psychopharmacologia* (Berlin), 1972, 24, 81-98.

Cannabis

- CONSTANTINIDIS, J. (Univ. of Geneva, Dept. of Psychiat., Bel-Air, 1225, Switzerland), & MIRAS, C. J. Effect of hashish smoke sublimate on hypothalamic noradrenaline studied by the fluorescence method. *Psychopharmacologia* (Berlin), 1971, 22, 80-90.
- DREW, W. G. (Labs. of Behav. Neurophysiol., Dept. of Psychiat., Univ. of Kentucky, Coll. of Med., Lexington, Ky. 40506), MILLER, L. L., & WIKLER, A. Effect of Δ^9 -THC on the open-field activity of the rat. *Psychopharmacologia* (Berlin), 1972, 23, 289-299.
- FERRARO, D. P. (Univ. of New Mexico, Albuquerque, N. Mex. 87106), GRILLY, D. M., & LYNCH, W. C. Effects of marijuana extract on the operant behavior of chimpanzees. *Psychopharmacologia* (Berlin), 1971, 22, 333-351.
- GONZÁLEZ, S. C. (Setor de Psicofarmacologia, Departamento de Bioquímica e Farmacologia, Escola Paulista de Medicina, Rua Botucatu, 862, São Paulo, Brazil),

- KARNIOL, I. G., & DE ARAUJO CARLINI, E. L. Effects of *Cannabis sativa* extract on conditioned fear. *Behavioral Biology*, 1972, 7, 83-94.
- HENRIKSSON, B. G. (Univ. of Uppsala, Slottsgränd 3, S-752 20 Uppsala, Sweden), & JÄRBE, T. Δ^9 -tetrahydrocannabinol used as discriminative stimulus for rats in position learning in a T-shaped water maze. *Psychonomic Science*, 1972, 27, 25-26.
- HENRIKSSON, B. G. (Univ. of Uppsala, Uppsala, Sweden), & JÄRBE, T. The effect of two tetrahydrocannabinols, (Δ^9 -THC and Δ^8 -THC) on conditioned avoidance learning in rats and its transfer to normal state conditions. *Psychopharmacologia* (Berlin), 1971, 22, 23-30.
- M A S U R, J. (Sector de Psicofarmacologia, Departamento de Bioquímica e Farmacologia, Escola Paulista de Medicina, São Paulo, Brazil), & MARTZ, R. M. W. Influence of ($-$) Δ^9 -trans-tetrahydrocannabinol and mescaline on the behavior of rats submitted to food competition situations. *Psychopharmacologia* (Berlin), 1971, 22, 187-194.

Stress Effects

- FRANKENHAEUSER, M. (Psychol. Labs., Univ. of Stockholm, Stockholm, Sweden). Interactions between environmental, behavioral, and endocrine factors during stress. *Studia Psychologica*, 1972, XIV, 18-24.
- LATANÉ, B. (Ohio State Univ., 404C W. 17th Ave., Columbus, Ohio 43210), FRIEDMAN, L., & THOMAS, J. Affiliation in rats under stress. *Psychonomic Science*, 1972, 27, 39-40.
- STERN, W. C. (Worcester Fdn. for Exptl. Biol., Shrewsbury, Mass. 01545), & HARTMANN, E. L. Reduced amphetamine lethality following chronic stress. *Psychopharmacologia* (Berlin), 1972, 23, 167-170.

Autonomic Effects

- BLAYLOCK, B. (1704 Parkhaven Dr., Champaign, Ill. 61820). Some antecedents of directional fractionation: Effects of "intake-rejection," verbalization requirements, and threat of shock on heart rate and skin conductance. *Psychophysiology*, 1972, 9, 40-52.
- BURSTEIN, K. R. (Simon Fraser

Univ., Burnaby 2, B.C., Canada), & SMITH, B. D. The latency distribution of the skin conductance response as a function of the CS-US interval. *Psychophysiology*, 1972, 9, 14-20.

GOLDWATER, B. C. (Univ. of Victoria, Victoria, B.C., Canada). Psychological significance of pupillary movements. *Psychological Bulletin*, 1972, 77, 340-355.

Heart Rate

- BERGMAN, J. S. (Smith Coll., Northampton, Mass. 01060), & JOHNSON, H. J. Sources of information which affect training and raising of heart rate. *Psychophysiology*, 1972, 9, 30-39.
- BLANCHARD, E. B. (Univ. of Mississippi Med. Ctr., Jackson, Miss. 39216), YOUNG, L. D., & McLEOD, P. Awareness of heart activity and self-control of heart rate. *Psychophysiology*, 1972, 9, 63-68.
- DeVIETTI, T. L. (Central Washington State Coll., Ellensburg, Wash. 98926), & KALLIOINEN, E. K. ECS-induced retrograde amnesia indicated by a heart-rate measure of retention. *Psychonomic Science*, 1972, 27, 35-36.
- D RONSEJKO, K. (Lakeshore Psychiat. Hosp., 3131 Lakeshore Blvd. W., Toronto 510, Ont., Canada). Effects of CS duration and instructional set on cardiac anticipatory responses to stress in field dependent and independent subjects. *Psychophysiology*, 1972, 9, 1-13.
- SCHWARTZ, G. E. (Dept. of Soc. Rel., Harvard Univ., Cambridge, Mass. 02138). Voluntary control of human cardiovascular integration and differentiation through feedback and reward. *Science*, 1972, 175, 90-93.
- STERN, R. M. (Pennsylvania State Univ., University Park, Pa. 16802), BOTTO, R. W., & HERRICK, C. D. Behavioral and physiological effects of false heart rate feedback: A replication and extension. *Psychophysiology*, 1972, 9, 21-29.
- WHISHAW, I. Q. (Univ. of Lethbridge, Lethbridge, Alta., Canada), BLAND, B. H., & VANDERWOLF, C. H. Hippocampal activity, behavior, self-stimulation, and heart rate during electrical stimulation of the lateral hypothalamus. *Journal of Comparative & Physiological Psychology*, 1972, 79, 115-127.