

PROCEEDINGS OF THE THIRTY-THIRD ANNUAL MEETING
OF THE
MIDWESTERN PSYCHOLOGICAL ASSOCIATION

I. E. FARBER, Secretary-Treasurer
University of Iowa

THE Midwestern Psychological Association held its thirty-third Annual Meeting at the Hotel Morrison, Chicago, on May 4-6, 1961, with 1,801 registered. The program consisted of 187 papers, 6 symposia, a workshop sponsored by the APA Board of Professional Affairs, and a Psi Chi meeting.

The Presidential Address, "Experimental Extinction in Learning and Memory," was delivered by Marion E. Bunch, Washington University.

The Program Committee consisted of Willard A. Kerr, Chairman, Frank Auld, Jr., Frederick A. Mote, and I. E. Farber. George S. Speer served as Convention Manager. Local Arrangements Committee Chairmen included John L. Holland, Theodore Schaffer, Jr., Nathan Glaser, William Kulick, David Kopel, Marvin Burack, and Kenneth W. Fells. Janice P. Fish and Michael Amrine of the APA Central Office assisted with placement and public information, respectively.

Newly elected officers were: I. E. Farber, President, 1961-62; Donald R. Meyer, Secretary-Treasurer, 1961-64; Edward L. Walker, Council Member, 1961-64; Ernest J. McCormick, Council Member, 1961-63; and James M. Vanderplas, Council Member, 1961-62.

The business meeting accepted 238 new and reinstated members, bringing the total membership to 2,461. According to the standing practice of the association, any APA member may automatically become a member of MPA by payment of dues (\$1.50 for 1 year, \$4.00 for 3 years) to the Secretary-Treasurer. Those joining before the program deadline, February 15, 1962, may submit papers for the next meeting.

The 1962 meeting will be held May 3-5 in the Hotel Morrison, Chicago, Illinois.

The following were elected to life membership:

Warren Baller	C. J. Lenba
Lewis E. Drake	E. F. Patten
Swan A. Engwall	Helen Peak
Edward B. Greene	Hazel Stevens
Virginia Kirk	L. E. Wiley

The following 152 APA members joined during the year ending May 1, 1961:

Naomi Arond	Paul Beckman
Thomas J. Banla	Frances L. Behan
Wesley C. Becker	Allen E. Bergin

Frances V. Berry	Ruth Hardwick
William Bevan	Arthur E. Harriman
Helen Miriam Bishop	Theodore L. Harris
J. Howard Bryant	Willard W. Hartup
Donald F. Caldwell	Joan M. Havlena
Richard J. Campbell	Kenneth Heller
L. Dennis Cannon	Peter W. Henningway
Daniel V. Caputo	Donald R. Henry
Archie B. Carran	Donald J. Hills
Bishwa B. Chatterjee	William C. Holz
Linda G. Cleutat	Edmund S. Howe
Victor J. Cleutat	Donald P. Hoyt
Fogle C. Clark	C. Wesley Jackson, Jr.
Robin J. Clyde	Noel Jenkin
Irwin H. Cohen	Elizabeth Z. Johnson
Anthony Davids	Reginald Jones
George E. Deane	James J. Kirkpatrick
Arnou E. Deguise	Herbert Klausmeier
Henry J. de Haan	P. Robert Knaff
Doris DeHardt	Charles Kram
Fred de Wit	Earl J. Kronenberger
Richard C. Diedrich	Alfred E. Kuenzli
Robert Doering	Carl J. Lange
Herbert Dörken	Donald L. Leslie
David I. Easley	L. W. Litvig
Norman S. Eandler	Perry London
E. Ross Epling	Ralph S. Long, Jr.
Betsy Worth Estes	John M. McCauley
John Feldhusen	Charles D. McDermid
John I. Fletcher	Warren C. McGovney
Garle A. Forehand, Jr.	Edward J. Manley
Harry Fowler, Jr.	Philip A. Marks
Douglas W. Freed	Arnold Mechanic
Walter H. Friedhoff	Clinton R. Meek
John Gaito	Warren J. Meyer
Theresa Garbus	M. J. Minas
Gertrude Z. Gass	H. William Morrison
Louise W. Gates	Howard A. Moss
Dulio Giannitrapani	Jay B. Mowbray
B. von Haller Glimmer	John M. Newell
Donald D. Glad	Richard C. Nickeson
Henry Gluck	John E. Nickols, Jr.
Morton Goldman	Fred H. Nohman
Harry Goldsmith	James Olds
Sanford Golin	Gordon W. Olson
Charles L. Goodrick	Kenneth D. Orton
Leonard E. Gottesman	Donald E. Pehle
David P. Grace	Margaret Peterson
James L. Hafner	C. Kermit Phelps
David T. Hakes	Robert R. Phillips

Robert A. Pierson
 Marc Pillsuk
 Robert Joe Piltz
 Louis T. Pope
 Norman I. Rasch
 Gustave J. Rath
 Ned L. Regelein
 Howard Reisman
 Gerald A. Reynolds
 Malcolm H. Robertson
 Serafin Romberg
 Irvin Roth
 Saul R. Rotman
 Vinton Rowley
 Ira J. Semler
 Kermit E. Severson
 Joseph G. Sheehan
 Joel E. Shelton
 Julia Sherman
 Lawrence Siegel
 Lila C. Siegel
 George Sivanich
 Robert G. Smith, Jr.

George R. Solka
 Robert Soskin
 Robert L. Sprague
 John R. Stabler
 Norman E. Stander
 Lawrence M. Stewart
 F. Beth Stone
 Roberta Strain
 Edward S. Sulzer
 Robert M. Taylor
 Don C. Teas
 David R. Thomas
 Donald G. Tritt
 Ledyard R. Tucker
 Mark Tucker
 Ed Ware
 Ronald M. Wilcox
 John Withall
 Benjamin D. Wright
 George N. Wright
 Ray S. Yamahiro
 Stanley P. Zarlock
 Fred M. Zimring

Stephen P. Klein
 James H. Koplin
 Harlan L. Linsley
 Eugene A. Lovelace
 Albro L. Lundy, Jr.
 Albert Marston
 James Gordon Martin
 Mary Lou Maxwell
 Angelo J. Micocci
 Robert John Miller
 William G. Miller
 Kenton L. Monroe
 John Moore
 Herman Morris
 Walter F. Murphy
 Gediminas Namikas
 Allan J. Nash
 Larry R. Nye
 Mary Otteson
 Ronald Penney
 David Lee Peters

Frank H. Price, Jr.
 Kendall O. Price
 Winifred D. Raab
 Martin Richer
 Leslie G. Rutherford
 Arthur Schilman
 William Sedlacek
 Charles Sheridan
 Francene Silbiger
 Jerome Singer
 Richard Thysell
 Milton A. Trapold
 Robert Treichler
 Bien Tsujioka
 William H. Vermillion, Jr.
 Louise Vetter
 Henry M. Weeks
 Keith A. Wollen
 Floyd Wylie
 Leonards Zuzne
 Steve J. Zyzenski

The following 72 non-APA applicants were elected to membership:

Lawrence Abrams
 Charles Allen
 Paul J. Ansfeld
 Daniel Norman Braunstein
 James Calkins
 Howard C. Carlson
 Kenneth Castelli
 David Connor
 Barbara M. Dean
 W. Edwin DeVoy
 Thomas E. Dubois
 Ronald A. Esposto
 Max Fogel
 Philip Freedman
 Jay Friedland

Jeanette Gehring
 Daniel Glaser
 Garry Goldenberg
 Don M. Goodrich
 Stephen W. Gornik
 Gordon Z. Greenberg
 Robert Charles Hauck
 Gloria Heiman
 Norman D. Henderson
 Hal Hendrick
 Grace Hinrichs
 John P. Hostetler
 Suzanne James
 Florence Johnson
 Arthur Jones

David Bakan
 Robert A. Baker
 Richard A. Bahan
 Willard L. Brigner
 Marvin Burack
 William M. Canning
 E. L. Clark
 Albert Eglash
 Robert L. French
 Sumner C. Hayward
 Edwin Paul Hollander
 Howard O. Holt
 Wendell E. Jeffrey
 Seymour Levy
 Erwin J. Lotsof
 William H. Lyle, Jr.
 Raymond C. Miles

R. Dale Nance
 Constance B. Nelson
 Rollin M. Patton
 W. Neal Phelps
 W. Sharnan Phillips
 N. I. Pielstick
 Homer B. C. Reed, Jr.
 Mary D. Rootes
 Ian Steele Russell
 Donald P. Scharlock
 William Seeman
 Denzel D. Smith
 James W. Taylor
 Roy E. Warman
 Albert E. Withbenmeyer
 Walter L. Wilkins
 John E. Williams

PAPER SESSIONS

Abstracts of papers have been deposited with the American Documentation Institute. Order Documents No. 6779-6805 from ADI Auxiliary Publications Project, Photoduplication Service, Library of Congress; Washington 25, D. C., remitting in advance the indicated price for microfilm or photocopies. Make checks payable to: Chief, Photoduplication Service, Library of Congress.

TITLE	ADI NO.	MICRO-FILM	PHOTO-STAT
Social Psychology	6782	\$2.00	\$3.75
Psychopharmacology	6783	2.00	3.75
Verbal Learning	6784	2.00	3.75
Perception	6796	2.00	3.75

PROGRAM

TITLE	ADI NO.	MICRO-FILM	PHOTO-STAT
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Personality Assessment	6798	2.00	3.75
Higher Processes I	6799	1.75	2.50
Sensory Processes	6805	2.00	3.75
Mathematical Behavior Models I	6790	2.00	3.75
Brain Functions	6791	1.75	2.50
Verbal Behavior	6792	2.00	3.75
Animal Learning	6793	2.00	3.75
Personality Dynamics	6794	2.00	3.75
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TITLE	ADJ NO.	MICRO-FILM	PHOTO-STAT
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Human Conditioning I	6788	1.75	2.50
Engineering, Personnel, and Training	6789	2.00	3.75
Animal Motivation	6800	1.75	2.50
Higher Processes II	6801	1.75	2.50
Early Experience	6802	2.00	3.75
Psychodiagnostic Testing	6803	2.00	3.75
Human Motive-Incentive Conditions	6804	2.00	3.75
Mathematical Behavior Models II	6785	2.00	3.75
Clinical Psychology	6786	1.75	2.50
Human Conditioning II	6787	1.75	2.50

Social Psychology

WILLIAM C. KOSINAR, *Wilson Junior College*, Chairman

The effect of team competition and success on the adjustment of group members. ALBERT E. MYERS AND FRED E. FINDER, *University of Illinois*.

The distribution of participation in small discussion groups. HARRY P. SHERLEY, *University of Nebraska*.
The effects of experimentally modified perceptions of similarity and dissimilarity on social adjustment and behavior. SHELDON ALEXANDER AND EUGENE DAVUCKER, *Southern Illinois University and University of Illinois*.

The conditioning and generalization of changes in perceptual dispositions. LEON H. LEVY, *Indiana University*.

A comparison between English-speaking and French-speaking Canadian students in terms of social desirability perceptions. GILLES A. AVCIAR AND ROBERT BLAIN, *University of Montreal and Civil Service Commission of Canada*.

The competence of the model and the learning of imitation and nomination. MILTON E. ROSENBAUM AND IRVING F. TUCKER, *University of Iowa*.

The influence of response conditions on recognition thresholds for taboo words. FRED H. NOTHMAN, *American University*.

Experimental slavery in monkeys. JAMES A. HOREL, F. ROBERT TREICHLER, AND DONALD R. MEYER, *Ohio State University*.

Psychopharmacology

JACK WERBOW, *Lafayette Clinic*, Chairman

Latency-measured conditioned emotional response procedures. DAILEY S. RAY AND AMEDEO S. MARRAZZI, *VA Research Laboratories in Neuropsychiatry*.

Effect of meprobamate on an aversively controlled discrimination in normal rats and rats with lesions

in the septal forebrain. JOHN A. HARVEY AND HOWARD F. HUNT, *University of Chicago*.

Effects of amphetamine and hunger on exploratory behavior and latent learning in rats. GERALD A. DOYLE AND N. JAMES CARLSON, *Western Reserve University*.
Reinforcing effects of a synthetic opiate in conditioning of drug seeking behavior in rats. PHILIP C. GREEN, FRANK T. PESCOR, AND ABRAHAM WIKLER, *National Institute of Mental Health*.

The Hebb-Williams maze as a measuring device for LSD effects in rats. PAUL J. ANSFELD AND JOHN I. JOHNSON, JR., *Purdue University and Marquette University*.

The effects of chlorpromazine on the extinction of intercurrent avoidance and appetitive responses in the cat. MICHAEL F. HALASZ AND HOWARD F. HUNT, *University of Chicago*.

Induced phenylpyruvic oligophrenia in infant monkeys. GAIL PALMER, HARRY F. HARLOW, AND HARRY A. WAISMAN, *University of Wisconsin*.

Simulation of schizophrenic performance with semyl, LSD-25, and amobarbital (amytal) sodium: Symbolic and sequential thinking. BERTRAM D. COHEN AND GERALD ROSENBAUM, *Lafayette Clinic and Wayne State University*.

Evaluating subjective effects of six drugs by means of an especially designed inventory. CHARLES A. HERTZEN, ALBERT B. WOLACH, JR., ABRAHAM WIKLER, AND HARRIS E. HILL, *National Institute of Mental Health*.

Verbal Learning

RUDOLPH W. SCHULZ, *University of Iowa*, Chairman
Retention of "heard" and "heard-seen" nonsense syllables in heterogeneous and homogeneous lists. HERBERT GERJVOVY, *University of Toledo*.

Partial serial-position constancy in nonserial paired-associate learning. WILLIAM F. BATTIG AND SAM C. BROWN, *University of Virginia*.

The influence of serial vs. random presentation of paired-associates. CLESSEN J. MARTIN AND ELI SALTZ, *Wayne State University*.

List difficulty, presentation rate, and segmental repetition in serial verbal learning of patterned lists. LEONARD E. JARBAR AND LEE W. GREGG, *Washington and Lee University and Carnegie Institute of Technology*.

Stimulus-term and response-term recall as functions of number of paired-associate training trials. JOSEPH W. CUNNINGHAM, SLATER E. NEWMAN, AND CLETON W. GARY, *Purdue University and North Carolina State College*.

Acquisition of paired-associates under differential instructions with recall and recognition tests. FRANK

D'ARBITTO, JOHN CASSEDAV, PENE KEGEL, KATHERINE MCCOLLUM, AND WILLIAM K. ESTES, *Indiana University*.

The bidirectional learning of paired-associates. IRVING J. SARITZMAN, *Indiana University*.

The influence of distribution of practice and presentation interval on incidental rote learning. GLORIA J. FISCHER AND MARY R. BAKER, *University of Oklahoma and University of California, Berkeley*.

Perception

A. B. KRISTOFFERSON, *University of Cincinnati*, Chairman

Stereoscopic fusion of near vertical retinal contours. GEORGE S. HARKER, *United States Army Medical Research Laboratory, Fort Knox, Kentucky*.

Frame effect in space and time perception. KAROL M. SAYONS AND MARIYAN K. RIGBY, *St. Louis University*.

The relative contributions of complexity and symmetry to the perception of form. SHELDON K. EDELMAN, GEORGE G. KARAS, AND BARRY J. COHEN, *Iowa State University and Martin Company*.

Variables affecting the perceptual learning of random shapes. CHARLES L. GOODRICK, *VA Research Laboratories in Neuropsychiatry*.

Response tendencies in visual detection of single targets. GORDON F. PRIZ AND HARRY W. KARN, *Carnegie Institute of Technology*.

Decrement to the Muller-Lyer illusion during repeated sessions. PAUL T. MOUNTROY, *Demison University*. Loudness constancy. JOHN T. GREENE, *Bowling Green State University*.

The effect of an imagined anchor upon an absolute judgment scale. PETER A. MAGARO AND CHARLES W. ERIKSEN, *University of Illinois*.

Animal Reinforcement Conditions

LEONARD E. ROSS, *University of Wisconsin*, Chairman
Secondary reinforcement strength and primary reinforcement schedule. HARVARD I. ARKATS, W. EDWIN DEVOR, TERRY EISENBERG, STEVEN SCHROEDER, AND MARCIA M. GARLICH, *University of Toledo*.
Secondary reinforcement as a suppressor. STANLEY J. WEISS AND REED LAWSON, *Ohio State University*.

Evocation and learning tests for secondary reinforcement. F. J. MCGURGAN, BARBARA EQUEN, AND JUDITH STRELLINGS, *Hollins College*.
Development of reinforcing properties of a stimulus as a function of various temporal relationships to food reinforcement. MELVYN H. MARK AND FREDERICK A. KNARR, *University of Missouri*.

Rate-differential reinforcement in monkey manipulation. DAVID PEMACK, *University of Missouri*.

Escape performance as a function of the delay of reinforcement. HARRY FOWLER AND MILTON A. TRAPOLD, *University of Pittsburgh and University of Iowa*.

Latent extinction as a function of two reward variables. LAWRENCE W. DACHOWSKI AND ARTHUR R. THOMAS, *University of Illinois and West Virginia University*.

Extinction effects under changed stimulus conditions following 50% and 100% reinforcement. SALLY E. SPERLING AND DAVID BIRCH, *University of Minnesota and University of Michigan*.

Personality Assessment

JOEL T. CAMPBELL, *Western Reserve University*, Chairman

A technique for predicting over- and underachievement through objective testing. LEONARD J. KAZMIER AND C. G. BROWNE, *Wayne State University*.

Adaptive regression and creativity. IRWIN H. COHEN, *Mental Health Institute, Independence, Iowa*.
Anxiety as a function of change in sex role. E. F. MORGAN, JR., G. ROSENBERG, AND B. SUTTON-SMITH, *Ama College and Bowling Green State University*.

Divergent thinking, age, and intelligence in white and Negro children. IRA ISCOE AND JOHN PERCE-JONES, *Harvard University and University of Texas*.
Variability in children's values in eight countries as a function of situational differences. LEIF G. TERDRAV AND GLADYS I. ANDERSON, *Michigan State University*.
A factor analysis of the California Psychological Inventory. JOHN O. CRITES, HAROLD P. BECHTOLDT, LEONARD D. GOODSTEIN, AND ALFRED B. HELLBRUN, JR., *University of Iowa*.

Factor analysis and behavioral correlates of the Draw-a-Person Test. ROBERT C. NICHOLS, DEONDANDUS J. W. SRUMPPER, AND PETER M. LEWINSOHN, *Purdue University, Potcheitrom University, and LaRue Carter Hospital*.

Higher Processes I

ISIDORE GORMEZANO, *Indiana University*, Chairman
Simultaneous conditioning of two responses to a paired-associate stimulus. EDWARD J. CROTHERS AND WILLIAM K. ESTES, *Indiana University*.

Effect of redundancy within a stimulus sequence upon discrimination learning. LYLE E. BOURKE, JR., *University of Utah*.

Discrimination learning set in preschool children. BULEY LEVINSON AND HAYNE W. REESE, *University of Buffalo*.

Perseveration as a function of degree of learning and percentage of reinforcement in card sorting. ALBERT

ERLEBACHER AND E. JAMES ARCHER, *University of Wisconsin*.
 Expectancy changes, reinforcement schedules, and latency of response. ERWIN J. LOTSOR, *Louisiana State University*.
 Verbal conditioning: Discrimination and awareness. JOHN F. MCBREARY AND FREDERICK H. KANFER, *Purdue University*.

Sensory Processes

ALFRED LIT, *Bendix Systems Division*, Chairman
 Acuity requirements for the recognition of blurred forms. GIRARD W. LEVY AND MILTON A. GRODSKY, *Martin Company*.
 Localization of peripheral light flashes. ALFRED J. KRAEMER, DAVID L. EASTLEY, AND MEREDITH J. HALL, *Human Resources Research Office, Fort Knox, Kentucky*.
 Photographic and spectroscopic studies of color phenomena produced by rotating black and white discs. ALAN H. ROBERTS AND WILLIAM E. GREEN, *New Mexico Highland University*.
 Electroretinographic luminosity functions of the night monkey *Aotus trivirgatus*. ARTHUR E. JONES, GERALD H. JACOBS, AND RUSSELL L. DE VALOIS, *Indiana University*.
 Auditory pattern perception with click pairs. WILLARD R. TRUDEL, *University of Wisconsin*.
 Use of the Blough technique with cats: Determination of auditory frequency discrimination thresholds. LARRY FRAZER AND D. N. ELLIOTT, *Henry Ford Hospital*.
 Qualitative similarity of odors. R. H. WRIGHT AND K. M. MICHELS, *Purdue University*.
 A correlation evaluation of two scaling methods for qualitative odor judgments. DAVID S. PHILLIPS, *Purdue University*.
 A determination of sugar-quinine isohedons for the rat. RICHARD BURRIGT, WILLIAM DEMARCO, AND WILLIAM E. KAPPAUF, *University of Illinois*.

Mathematical Behavior Models I

MAX S. SCHOEFFLER, *Bell Telephone Laboratories*, Chairman
 The relative effects of forced reward and forced non-reward during successive discrimination reversal. KEITH N. CLAYTON, *Vanderbilt University*.
 Probability learning with nonreinforced trials. LEO KEILER, CLERTUS J. BURKE, AND ALLEN M. SCHNEIDER, *Indiana University*.
 The role of the competing response in probabilistic verbal acquisition. JAMES F. VOSS, *College of Wooster*.

A partial reinforcement procedure for T maze probability learning. SAMUEL H. REVUSKY, *VA Hospital, Northampton, Massachusetts*.
 Response latency as a function of π in a modified prediction situation. KIRK H. SMITH AND DAVID LABERGE, *University of Minnesota*.
 Nonreinforcement and neutralization of stimuli. JAMES G. GREENE, DAVID LABERGE, AND O. F. PETERSON, *University of Minnesota*.

Brain Functions

HARRY J. JERSON, *Antioch College*, Chairman
 A behavioral analysis of cats with extensive neocortical ablations. PATRICIA MORGAN MEYER, *Ohio State University*.
 The effect of bilateral hippocampal lesions on simultaneous and successive brightness discrimination in the rat. DANIEL PORTER KIMBLE AND ROBERT LEE ISAACSON, *University of Michigan*.
 Septal lesions reduce the inhibitory effects of punishment. HOWARD J. SIMMONS AND GARRETT J. THOMAS, *University of Illinois*.
 The neurological and psychological significance of Gerstmann's syndrome. RALPH M. REITAN AND ROBERT F. HEIMBURGER, *Indiana University Medical Center*.
 The significance of age in the learning of a complex psychomotor task by brain-damaged and non-brain-damaged subjects. HOMER B. C. REED, JR., *Indiana University*.
 Reminiscence in inverted alphabet printing as a function of degree of EEG abnormality. MANNFRED J. MEYER, *University of Minnesota*.

Verbal Behavior

A. R. BAGGALEY, *University of Wisconsin-Milwaukee*, Chairman
 A grammatical study of free association. ERWIN M. SEGAL AND JAMES J. JENKINS, *University of Minnesota*.
 Grammatical constraints and free association responses. JAMES J. JENKINS, PHILIP B. GOUGH, DAVID T. HAKES, AND ERWIN M. SEGAL, *University of Minnesota*.
 Paradigmatic similarity and word association. PHILIP B. GOUGH AND JAMES J. JENKINS, *University of Minnesota*.
 Recall and recognition measures of immediate memory. JAMES H. KORN AND JOHN C. JAHNKE, *Carnegie Institute of Technology and Miami University*.
 Short-term retention of paired-associate lists. GEORGEY KEPPEL AND BENTON J. UNDERWOOD, *Northwestern University*.

The role of stimulus and response familiarization (n) in paired-associate verbal learning. DAVID T. HAKES, *University of Minnesota.*

The effects of stimulus association value and exposure duration on R-S learning. EDWIN H. CASSEM AND DONALD H. KAUSIER, *St. Louis University.*

The effects of meaningfulness and practice on simultaneous intentional and incidental learning. ARNOLD MECHANIC, *Northwestern University.*

Animal Learning

KENNETH P. GOODRICH, *University of Pennsylvania*, Chairman

The effect of running to formerly positive or negative goal boxes on resistance to extinction. DAVID E. STIBER, JOHN NYGAARD, AND PAUL GAMES, *University of Michigan and Ohio University.*

Extinction as a function of number of acquisition trials and extinction intertrial interval. MICHAEL COLE AND FRED ABRAHAM, *Indiana University.*

Resistance to extinction and the discrimination hypothesis. WILLIAM F. REYNOLDS AND PHILIP E. FREDMAN, *Rutgers University and University of Iowa.*

The effects of equal reinforcement of the positive and negative discriminanda of a learned discrimination. LEONARD E. ROSS, *University of Wisconsin.*

Serial reversal learning as a function of the number of trials per reversal. BENJAMIN H. FURBOLS, JR., *University of Miami.*

The role of visual monitoring of responses in primate pattern discrimination learning. MARY OTTESON, CHARLES I. SHERMAN, AND DONALD R. MEYER, *Ohio State University.*

The effects of response induced, stimulus change, primate, discrimination learning. CHARLES I. SHERMAN, MARY I. OTTESON, AND DONALD R. MEYER, *Ohio State University.*

A free operant test of the discrimination hypothesis. DAVID G. BORN AND REED LAWSON, *Ohio State University.*

Time between presentation of stimuli as a variable in simultaneous and successive discrimination problems. D. W. TYLER, *Louisiana State University.*

Personality Dynamics

RUDOLPH C. WALDSCHMIDT, *Valparaiso University*, Chairman

Alternation after forced choices as a function of dominance in women. ROBERT TARTE AND HENRY E. KLUGH, *Ama College.*

Performance of extroverts and introverts under massed and distributed practice. EUGENE LOVELACE, I. E. FARBER, AND JOAN H. CANTOR, *University of Iowa.*

Sources of frustration and targets of aggression: A cross-cultural study. LEIGH MINTURN TRANDIS AND WILLIAM W. LAMBERT, *University of Illinois and Cornell University.*

Conformity and level of aspiration behavior. SHEPARD LIVERANT AND MIRIAM ODELL, *Ohio State University.*

The need for social approval, task categorization, and perceptual defense. CHRISTOPHER E. BARTHEL AND DOUGLAS P. CROWNE, *Ohio State University.*

Motivation and set in acquiring information about people. EARL R. CARLSON, *Michigan State University.*

Stimulus vividty and anxiety level in incidental-intentional learning. MARIYAN E. MILLER AND JOYCE A. DOST, *University of Wisconsin-Milwaukee.*

The effects of anxiety, need achievement, and task importance upon performance of an intelligence test. LAWRENCE S. WRIGHTSMAN, JR., *George Peabody College for Teachers.*

Comparative and Genetic Psychology

RAYMOND C. MILES, *University of Alberta*, Chairman
Conditionability of two-headed planaria. EDWARD N. ENRHART, *Washington University.*

Photosensitivity of the amoeba as a function of hue. LLOYD HITCHCOCK, JR., *Purdue University.*

Shape constancy in the raccoon. K. M. MITCHELL AND T. SPIRITOSO, *Purdue University.*

Species difference in the effect of reward and nonreward in the discrimination learning of monkeys. R. W. LEARY AND D. A. STEVENS, *University of Oregon.*

Reinforcing effects of various social activities for chimpanzees. WILLIAM A. MASON, *Yerkes Laboratories of Primate Biology.*

Effects of prenatal X-irradiation on the development of motor performance in the rat. JACK WERBOFF, IRVING GOODMAN, AND JOAN HAVLENA, *Lafayette Clinic.*

Dominant and intermediate inheritance of behavior in mice. JAN H. BRUEHL, *Western Reserve University.*
Genetics, age, and the variability of learning performances. GILBERT W. MEYER, *Vanderbilt University.*

Somatic Variables and Learning

DAVID T. LYKKEK, *University of Minnesota*, Chairman
Electroconvulsive shock as an unconditioned stimulus. DONALD J. LEWIS AND HENRY E. ADAMS, *Louisiana State University.*

Heart rate conditioning: Fact or artifact. JOHN A. STERN AND THOMAS J. WORD, *Washington University School of Medicine.*

Maze learning and open field behavior of adrenalectomized rats. JOAN HAYLENA AND COLEMAN PAUL, *Lafayette Clinic.*

The effect of degree of emotionality and number of cues upon avoidance conditioning to X-irradiation. JACK ARBET, *Northwestern University Medical School.*

Sex and radiation as factors in peripheral cue discrimination learning. ARNOLD A. MCDOWELL AND W. LYNN BROWN, *University of Texas.*

Skin conductance levels and verbal recall. RICHARD N. BERRY, *Indiana University.*

Schizophrenia

NORMAN GARMEZ, *University of Minnesota*, Chairman

Social interaction and severity of emotional disturbance.

WILLIAM H. BARBER, MARTYNN K. RIGBY, AND ALBERT F. WESSEN, *St. Louis University and Washington University.*

Self-actualization in choice scores of improved and unimproved chronic schizophrenic patients. ROBERT S. NEMO AND ROY M. HAMLIN, *V A Hospital, Danville, Illinois.*

Toward a classification of ego strength in schizophrenia. DAVID LEVINE, *University of Nebraska.*

Generalization-like phenomena in schizophrenia. LOREN J. CHAPMAN AND JEAN P. CHAPMAN, *University of Kentucky.*

The effects of psychopathology on two dimensions of cognition. JAMES I. GRISSELL AND BERTRAM D. COHEN, *Lafayette Clinic.*

Forced choice word associations in schizophrenics. LEONARD E. GOTTESMAN, *University of Michigan.*

Effect of content upon thinking in schizophrenia. PETER M. LEWINSOHN AND ANN RIGGS, *LaRue D. Carter Memorial Hospital.*

Attitudes and Attitude Change

FRANK J. HOLMES, *Illinois Wesleyan University*, Chairman

The influence of item grammatical complexity on scale values derived by the method of equal appearing intervals. LEROY WOLINS, ARTHUR C. MACKINNEY, AND SHARON K. EFFEUBERGER, *Iowa State University.*

A method of applying magnitude estimation to attitude scale construction. PAUL F. WERRIMONT, ARTHUR C. MACKINNEY, AND LEROY WOLINS, *Iowa State University.*

The influence of brains, beauty, residence, and religion on social choice. SUE EYRTS AND BENJAMIN WRIGHT, *University of Chicago.*

An exploratory study of centrality of beliefs and perceived consensus. ALBERT ZAVALA AND MILTON ROKEACH, *Michigan State University.*

Effectiveness of prior defenses in producing resistance to "black" and "white" propaganda. WILLIAM J. MCGUIRE, *University of Illinois.*

A multiple scalogram analysis of United Nations voting. ALICIA MAY BROWN V BENDANA AND CHARLES WRIGHT, *Michigan State University.*

Variables associated with student preference in the 1960 presidential election. ANDREW R. BAGGLEY, *University of Wisconsin-Milwaukee.*

Some relationships between rated importance and satisfaction expressed on factors measuring job satisfaction. ROBERT E. CHANDLER, *General Motors Corporation.*

Human Conditioning I

K. E. MOYER, *Carnegie Institute of Technology*, Chairman

A study of conditioning. WILLIAM F. PROKASY AND JOHN F. HALL, *Pennsylvania State University.*

The GSR as a function of classical conditioning, "instructional" conditioning, and clinical anxiety. D. GENE DAVENPORT, *St. Louis University.*

Rate of GSR conditioning related to intelligence level. CHARLES F. HANER AND MICHAEL J. CHANDLER, *Grinnell College and University of California.*

Incubation effect: Role of awareness in an immediate vs. delayed test of conditioned emotionality. SANFORD GOLOS, *University of Wisconsin-Milwaukee.*

Engineering, Personnel, and Training

ROBERT GLASER, *American Institute for Research*, Chairman

Factored life history antecedents of research creativity and productivity. ROBERT F. MORRISON AND WILLIAM A. OWENS, JR., *Purdue University.*

Synthetic validity for selection in a small organization. ROBERT M. GUNON, *Bowling Green State University.*

Effects of cockpit vertical acceleration on pilot tracking performance. ROBERT O. BESCO, *North American Aviation.*

Work team effectiveness as a function of mechanical degradation of the intrateam communication system. J. S. KIM, *Ohio State University.*

Sources of vigilance decrement in a complex task. LAWRENCE R. BOUTLER AND JACK A. ADAMS, *University of Illinois.*

Anticipation in continuous tracking. LYLE R. CREAMER AND JACK A. ADAMS, *University of Illinois.*

Life history antecedents of volunteers and nonvolunteers for an AFROTC program. WILLIAM A. OWENS

AND WILLIAM E. WILLIAMS, *Purdue University and United States Air Force.*

Books as teaching machines: Some data. H. OLIVER HOLZ AND JOSEPH HAMMOCK, *Bell Telephone Laboratories.*

Animal Motivation

JOHN K. BARE, *Carleton College*, Chairman

The relationship between deprivation weight loss and two activity measures. F. ROBERT TREICHER, *Ohio State University.*

Wheel activity in rats grouped by periods of repeated confinement. JAMES W. CLARK AND EDWARD NEWBURY, *University of Kentucky.*

Extinction under nine different deprivation levels. JOHN W. COTTON AND WINFRED F. HILL, *University of California, Santa Barbara, and Northwestern University.*

Effectiveness of drive and preceding reinforcements on reaction potential after numerous extinctions and reconditioning. RAYMOND C. MILES, *University of Alberta.*

Habit acquisition and reversal in a T maze as a function of drive strength. JOAN H. CANTOR, *University of Iowa.*

Running speed as a function of shifts in concentration of sucrose incentive between pretraining and training. KENNETH P. GOODRICH AND HERBERT ZARETSKY, *University of Pennsylvania.*

Higher Processes II

JACK RICHARDSON, *Harpur College*, Chairman

Conditions and tests for mediation. JAMES G. MARTIN, *Kent State University.*

Strategies in concept attainment. JOE L. BYERS AND HERBERT J. KLAVUSMEIER, *University of Wisconsin.*

The effects of contiguous grouping and the percentage of relevant cues upon concept identification. MARGARET JEAN PERERSON, *Indiana University.*

An investigation of the relationship between concept formation ability and reading achievement in children at three development levels. JEAN S. BRAUN, *Lafayette Clinic.*

Paired-associate learning as a function of categorical similarity and cue reduction in normal and mentally retarded children. IRA J. SEMLER AND IRA ISCOE, *Cedar Rapids Public Schools and Harvard University.*

Early Experience

STANLEY C. RATNER, *Michigan State University*, Chairman

Behavioral aftereffects of early trauma in mice: Critical periods of traumatization. NORMAN D.

HENDERSON AND JAN H. BRUELL, *Oberlin College and Western Reserve University.*

The diadic development of emotional behavior in mother and young. PAUL V. CARLSON AND MARK W. STEPHENS, *Purdue University.*

Some effects of multiple mothering and maternal emotionality level on offspring growth and development. DONALD R. OTTINGER AND MARK W. STEPHENS, *Indiana University Medical Center and Purdue University.*

Cold stress as a factor of early handling experience affecting body weight. WILLIAM D. KALBERER, *Purdue University.*

Effects of infantile stimulation and age upon behavior. VICTOR H. DENENBERG AND S. A. SMITH, *Purdue University.*

Modification of adult emotionality through early social experience. JOHN R. C. MORRIS AND VICTOR H. DENENBERG, *Purdue University.*

Effects of fostering on survival and weight gain in the rat. LEE J. GROTA, *Purdue University.*

Psychodiagnostic Testing

NORMAN A. MURKIN, *Nebraska Psychiatric Institute*, Chairman

The validity of Wechsler's signs of mental deficiency. LUCIANO L'ABATE AND MILTON KENTEN, *Washington University School of Medicine and Project, Incorporated.*

Prognostic factors in elderly patients. N. CHARLES BOURESTOM, ROBERT J. WOLFE, AND HOWARD R. DAVIS, *Mental Health Institute, Independence, Iowa, and Minnesota Follow-up Study.*

The effects of epileptic seizures on intellectual functioning. HALLGRIM KJÖVE, *Indiana University Medical Center.*

The presence of laterality of cerebral damage predicted from a brief aphasia test. LAWRENCE WHEELER AND RALPH M. RERTAN, *Indiana University.*

Effects of lateralized cerebral dysfunction in patients with longstanding brain damage on Wechsler-Bellevue variables and Halsted impairment index. KATHLEEN B. FITZTUGH, *New Castle State Hospital.*

Sensorimotor deficits of brain damaged subjects in relation to intellectual level. LOREN C. FITZTUGH, *New Castle State Hospital.*

Human Motive-Incentive Conditions

GORDON N. CANTOR, *University of Iowa*, Chairman

Effectiveness of paired verbal reinforcements as a function of task complexity. WILLIAM J. MEYER AND STUART I. OFFENBACH, *University of Pittsburgh.*

Incubation: Effect of awareness on immediate vs. delayed recall of words followed by shock. PHILIP E. FREDMAN AND I. E. FARRER, *University of Iowa.*

Effect of minimal social reinforcement on interviewee behavior. FREDERICK H. KANFER AND JOHN F. McBREARY, *Purdue University.*

The conditioning of verbal behavior as a function of the need for social approval. DOUGLAS P. CROWNE AND BONNIE R. STRICKLAND, *Ohio State University.* Incidental learning in children under varying levels of incentive set. BEVERLEY G. FICKE AND DONALD H. KAUSLER, *St. Louis University.*

Effects of change in drive on stimulus generalization. ARTHUR R. PLATZ AND ROBERT B. ZAJONC, *University of Michigan.*

An investigation of ego involvement using a transitivity test. EVA D. FERGUSON, *Craig House, Pittsburgh, Pennsylvania.*

Mathematical Behavior Models II

DAVID LABERGE, *University of Minnesota*, Chairman

The effect of skill and chance orientations on probability preferences. LAWRENCE W. LITTE, *University of Buffalo.*

Boredom: A violating variable in decision experiments. PAVL SLOVIC, SARAH LICHTENSTEIN, AND WARD EDWARDS, *University of Michigan.*

Effects of risk avoidance on category width and decision certainty. SIDNEY ROSEN AND MARGARET F. HOFFMAN, *Marguerite University.*

Prediction for some stochastic events: A regret equalization model. MAX S. SCHOFFELEER, *Bell Telephone Laboratories.*

Sequential predictions with variable stakes. MARIYNN TANNENBAUM AND WARD EDWARDS, *University of Michigan.*

Probability learning with displays, instructions, and payoffs variant. WARD EDWARDS AND MARIYNN TANNENBAUM, *University of Michigan.*

A comparison of human performance and an ideal strategy in a maintenance game situation. MILTON A. GROSSKY, GILARD W. LEVY, DAVID L. GLAZER, AND ROBERT D. SORKIN, *Martin Company and University of Michigan.*

Clinical Psychology

LOREN J. CHAPMAN, *University of Kentucky*, Chairman

Silence as a form of resistance. GARY B. GOLDENBERG AND FRANK AVUD, JR., *Wayne State University.*

Variables related to duration of individual psychotherapy. A. BARCLAY AND ARNOLD H. HUDNEN, *St. Louis University.*

Stimulus generalization measures of impulsivity in murderers, thieves, and guards. GERALD ROSENBAUM, *Wayne State University.*

Performance of mental deficients on a simple vigilance task. J. ROGER WARE, ROBERT A. BAKER, JR., AND RAYMOND R. SIPOWICZ, *United States Army Armor Human Research Unit.*

Human Conditioning II

MARTIN R. BARON, *Kent State University*, Chairman

Cognitive factors in heart rate conditioning. BISHWA B. CHATTERJEE AND CHARLES W. ERIKSEN, *University of Michigan and University of Illinois.*

Gastrointestinal reactions during a noise avoidance task. R. C. DAVIS AND FRANCES BERRY, *Indiana University.*

Effects of omitted vs. delayed UCS on classical eyelid conditioning under partial reinforcement. JOHN W. MOOSE AND ISDORÉ GORMEZANO, *Indiana University.*

Effects of instructions on the extinction and recovery of an avoidance response. RICHARD H. LINDLEY AND K. F. MOYER, *Carnegie Institute of Technology.*

SYMPOSIUM

Models and Organic Correlates of Psychological Processes

RONALD H. FERGUSON, *Lake Forest College*, Chairman

Participants:

HAROLD W. HAKE, *University of Illinois.* Application of information theory to perception.

KENNETH R. LAUGHERY, *Carnegie Institute of Technology.* The simulation of problem solving behavior.

ROGER W. RUSSELL, *Indiana University.* Neurochemical lesions and behavior.

JOHN GATTO, *Lake Forest College.* A biochemical conceptualization of learning and memory.

Discussants: JOHN A. HARVEY, *University of Chicago;* AND LEE GREGG, *Carnegie Institute of Technology.*

Psychological Inferences Concerning Organic Brain Damage

WESLEY C. BECKER, *University of Illinois*, Chairman

Participants:

HALLGREN KLOVE, *Indiana University Medical Center.* Tests and methods used in neuropsychological evaluation.

RALPH M. RETTAN, *Indiana University Medical Center.* Inferences in individual patients based on neuropsychological data.

CURTIS J. BURKE, *Indiana University.* Discriminant functions as a diagnostic technique.

LAWRENCE WHEELER, *Indiana University*. An application of discriminant functions to the problem of predicting brain damage using behavioral variables. Discussant: WARD C. HALSTED, *University of Chicago*.

Concepts in the Experimental Study of Human Motivation

R. B. CARTELL, *University of Illinois*, Chairman

Participants:

CHARLES VEROFF, *University of Michigan*. Assessment of motives through fantasy.
DAVID CONNOR, *University of Otago*. Motivation and school achievement.
NORMAN GARMEZY, *University of Minnesota*. Responses of schizophrenic subjects to motivational cues.

ARTHUR SWEENEY, *University of Illinois*. The factored motivation space of children.

Discussants: WILLARD KEER, *Illinois Institute of Technology*; AND JULIAN ROTTER, *Ohio State University*.

Current Research on Experimental Gastric Ulcer

JEROME D. PAUKER, *Malcolm Bliss Mental Health Center*, Chairman

Participants:

DAVID A. BRODIE, *Merck Institute for Therapeutic Research*. Review of the literature on restraint induced ulcers.

HARLEY M. HANSON, *Merck Institute for Therapeutic Research*. A study of the factors involved in the production of restraint induced ulcers.

ROBERT ADER, *University of Rochester School of Medicine*. Plasma pepsinogen and gastric lesions in the rat.

JACOB O. SINES, *Washington University School of Medicine*. Behavioral correlates of genetically enhanced susceptibility to gastric lesions.

Discussants: I. ARTHUR MIRSKEY, *University of Pittsburgh*; AND HOWARD F. HUNT, *University of Chicago*.

Action Training Techniques in Industry

RAYMOND J. CORSINI, *Daniel D. Howard Associates*, Chairman

Participants:

T. W. FRANK, *Belkone Hearing Aid Company*. Improving liaison effectiveness in industry.
WILLIAM REINHARDT, *Kand-McNally Publishing Company*. Group dynamics and role playing.

WALLACE LONERGAN, *University of Chicago*. Reducing interpersonal conflicts in industry.

I. RICHARD HOFFMAN, *University of Michigan*. Matching methods and objectives.

Discussants: IRWIN SWARTZBERG, *Realemco-Puritan Company*; AND PHILIP ASH, *Inland Steel Company*.

The Role of the Internship in Predoctoral Clinical Training

HAROLD BASOWITZ, *National Institute of Mental Health*, Chairman

Participants:

SOL L. GARFIELD, *Nebraska Psychiatric Institute*; ALBERT I. RABIN, *Michigan State University*; JOSEPH E. BREWER, *Wichita Guidance Center*; AND WILLIAM SCHORFELD, *University of Minnesota*.

SPECIAL MEETING

Workshop for Officers or Representatives of State Associations. Sponsored by the APA Board of Professional Affairs. Louis L. McQuilty, Chairman.

PSI CHI

Paper Session

GEORGE S. SPEER, *Illinois Institute of Technology*, Chairman

Effects of CS-UCCS interval on rate and asymptotic level of eyelid conditioning. RICHARD WENE, *Indiana University*.

Effect of UCS-alone presentations in eyelid conditioning. EDWARD DEAUX, *Indiana University*.

Maze learning and spontaneous alternations in earth-worm (*Lumbricus terrestris*). PEYLLIS M. KASPER, *University of Wisconsin-Milwaukee*.

An evaluation of blocking in motor conflict. MARYN A. POWELL, *University of Wisconsin-Milwaukee*.

The effects of failure and success in a concept formation task. JOHN T. PURCHARD, *University of Wisconsin-Milwaukee*.

Invited Address

BERTON J. UNDERWOOD, *Northwestern University*. One-Trail Learning. WILLIAM K. ESTES, *Indiana University*, Chairman.

PRESIDENTIAL ADDRESS

MARION E. BUNCH, *Washington University*. Experimental Extinction in Learning and Memory. ROSS STAGNER, *Wayne State University*, Chairman.