ACKNOWLEDGEMENTS – REMERCIEMENTS

The Editor would like to express his sincere thanks for the assistance of the following people who, in addition to the Editorial Board, acted as reviewers for the contributions submitted to the International Journal of Psychology in 1992.

Le Rédacteur tient à exprimer sa gratitude aux collègues suivants qui, en plus des membres du Comité de Rédaction, ont procédé à l’évaluation des manuscrits soumis au Journal International de Psychologie en 1992:

F. Aboud
G.R. Adams
J.R. Alelo
G.L. Allen
L.J. Alpert-Gillis
S.A. Aivi
H.M. Annis
B.J. Anthony
J.L. Arnett
M.H. Ashcraft
J. Avard
A.D. Balota
B.M. Bass
J. Beaugrand
S. Belleville
M. Bendavid
B.J. Biddle
D.F. Bjorklund
M. Blais
G. Bohrnstedt
L. Bouffard
M.P. Bryden
J.K. Chadwick-Jones
C. Chamberland
C. Charbonneau
A.T. Church
K.A. Clarke-Stewart
E.S. Cohn
M. Cole
P. Cormier
M. Cossette-Ricard
M. Cyr
Y. Dagenais
J.P. Deonchy
A. Delorme
M.H. Dembo
J.B. Deregowski
K.L. Dion
K. Dobson
W. Dolse
F. Doré
L. Dubé
D. Dubois
G. Dubois
C. Dufresne-Tassé
G. Dupuis
N. Eisenberg
S. Erkut
O. Favreau
D. Fein
S.S. Feldman
A.F. Furnham
M.K. Gardner
D.C. Geary
R. Godbout
L.R. Goldberg
I.L. Goldstein
L.J. Harris
L. Henderson
P.P. Heppner
S. Hodgens
J.A. Howard
C.H. Hui
G. Hurley
J.R. Jennings
M. John
S. Jutras
R.W. Kamphaus
S. Larivée
S. Larochelle
S. Lau
J. Lautrey
F. Lavoie
R. Lécuyer
J.-Y. Lortie
E. Luc
H.K. Ma
G. Malcuit
C. Malo
G.M. Manuel
C.G. Margolis
K. Marjoribanks
S.E. Markham
M.E. McCloskey
R.R. McCrae
G.B. Melton
P.P. Minuchin
B. Mishara
J. Montplaisir
L. Nadeau
J.-A. Naglieri
P.M. Nicassio
R.A. Noe
C. Piché
A. Pomerleau
D. Poulin-Dubois
K.A. Provins
E. Quintin
M. Robert
A. Rondeau
D.A. Rosenthal
J. Rouleau
S. Sabourin
R. Salamé
C. Sarrazin
J.-F. Saucier
K.W. Schale
M. Segall
R.C. Sherman
B. Shwalb
B. Ska
R. Smithcr
D.M. Taylor
A. Tziner
L. Wheeler
J. Wright
G.A. Yuki
J.J. Zarski
P.G. Zukow
XXV International Congress of Psychology
Brussels, 19–24 July 1992

ABSTRACTS

XXV Congrès International de Psychologie
Bruxelles, 19–24 juillet 1992

RÉSUMÉS

LAWRENCE ERLBAUM ASSOCIATES, PUBLISHERS
Hove (UK) Hillsdale (USA)
CONTENTS

Report of the IUPsyS Committee on Communication and Publications, by Wayne H. Holtzman xv

Annual Report for 1991 of the International Union of Psychological Science (IUPsyS), by Kurt Pawlik xvii

International Union of Psychological Science: Directory of National Members xxiii

Keynote Addresses 1

State-of-the-art lectures 4

1. PERCEPTION AND ATTENTION

Symposia 10
SY001 Object perception 11
SY002 Perspectives in animal psychophysics 12
SY003 Visual selective attention 13
SY004 Issues in visual motion perception 14
SY005 Perceptual theory toward the end of the twentieth century 15
SY006 Motor theories of perception 16
SY007 Father time: the psychology of time in honour of Paul Fraisse 17
SY008 Perceiving and thinking about causes: a symposium in honor of Michotte 18

Thematic sessions 19
TH001 Auditory processing 19
TH002 Time perception and temporal processing 21
TH003 Attentional processes 22
TH004 Motion, perception and kinesthetic processing 24
TH005 Visual processing 1 26
TH006 Visual processing 2 27

Interactive sessions 29
IN001 Music processing 29
IN002 Motion perception and kinesthetic processing 30
IN003 Visual illusions, adaptations and after-effects 31
IN004 Colour, brightness and spatial frequencies processing 33
IN005 Development and ageing 35
IN006 Perceptual and attentional deficits 36
IN007 Time and temporal processing, rythmicities 37
IN008 Visual processing 39
IN009 Perception and attention 42
2. LANGUAGE AND SPEECH

Symposia 48
SY009 Morphology and language comprehension 48
SY010 Lipreading 49
SY011 The acquisition, processing, and breakdown of visual-gestural languages 50
SY012 Reading in different orthographies 51
SY013 Symposium on figurative language 52
SY014 Cognitive processes in word recognition 54
SY015 Eye movements in reading: a confrontation of current theories 55
SY016 Language phonology and speech recognition 57
SY017 Speech perception by infants 58
SY018 Pragmatic aspects of linguistic and cognitive development 60
SY019 Early acquisition of a second language 61

Thematic sessions 61
TH007 Word recognition 61
TH008 Speech perception and cognitive models 62
TH009 Reading acquisition and metalinguistics 64
TH010 Comprehension processes 66
TH011 Sentence processing 68
TH012 Language acquisition 69

Interactive sessions 71
IN010 Language development 71
IN011 Reading 74
IN012 Social and emotional aspects of language 78
IN013 Bilingualism and second language learning 81
IN014 Text, sentence and discourse processing 83
IN015 Speech perception 88
IN016 Language production 90

3. MEMORY AND LEARNING

Symposia 93
SY020 Autobiographical memory 93
SY021 Face processing 94
SY022 Implicit memory 95
SY023 Working memory: an introduction 96
SY024 Functional factors in memory impairment 97
SY025 Categories, concepts and semantic memory 98
SY026 Action event memory 99
SY027 Pavlovian conditioning with complex stimuli 101

Thematic sessions 102
TH013 Memory 1 102
TH014 Memory 2 104
4. ACTION AND MOTOR SKILLS

Symposia 137
SY028 Psychological research on calligraphy 137

Thematic sessions 138
TH021 Cognitive and biological factors in motor skills 138

Interactive sessions 140
IN027 Current issues in motor skills studies 140

5. THOUGHT AND PROBLEM SOLVING

Symposia 144
SY029 New horizons in imagery research 144
SY030 The psychology of music 145
SY031 Knowledge representation 146
SY032 Deductive reasoning 148
SY033 Problem solving 149
SY034 Connectionism 150

Thematic sessions 150
TH022 Problem solving in children 150
TH023 Adult reasoning 152
TH024 Expert strategies and the training of thinking 153
TH025 Individual differences in cognition 155

Interactive sessions 157
IN028 Child recognition 157
IN029 Expert strategies and adult reasoning 159
IN030 Task characteristics and cognitive strategy 163
IN031 Individual differences and clinical aspects 167
6. DECISION MAKING

**Symposia 171**
- SY036 Decision making in clinical context 171
- SY037 Understanding cognitive biases 172

**Thematic sessions 173**
- IN031 Judgement under uncertainty: heuristics and biases 173

**Interactive sessions 175**
- IN032 Group decision making 175
- IN033 Factors influencing decision making 175
- IN034 Decisions and judgements: processes and models 177

7. EMOTION AND MOTIVATION

**Symposia 180**
- SY038 Stress modulation of disease 180
- SY039 Human eating behaviour 181
- SY040 Research in reproductive behaviour 182
- SY041 Future time perspective and goals in human motivation: the functional view of goals 183

**Thematic sessions 185**
- TH027 The measurement of emotional climate 185
- TH028 Actual and self-reported emotional reactions 186
- TH029 Antecedents of emotion: situation appraisal and expected outcomes 188

**Interactive sessions 189**
- IN035 Emotion and cognition: interactions between perceptual, motor, cognitive and affective processes 189
- IN036 Emotion labelling and facial expression processing 191
- IN037 Emotional processes, environment and health 193
- IN038 Affective disorders 195
- IN039 Individual differences in achievement motivation and time perspective 196
- IN040 Motivation in learning, education and academic achievement 197

8. DEVELOPMENTAL PSYCHOLOGY

**Symposia 200**
- SY042 Behaviour and cognitive processing in early infancy 200
- SY043 Face processing in infancy 201
- SY044 The development of mathematical concepts 203
- SY045 The development of social skills 204
- SY046 Adolescence: divergent developmental pathways 205
- SY047 Symposium on ageing and cognition 206
- SY048 Psychological aspects of ageing 207
- SY049 Intergenerational transmission of attachment 208
<table>
<thead>
<tr>
<th>Symposium</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY050</td>
<td>The psychology of midlife development</td>
<td>210</td>
</tr>
<tr>
<td>SY051</td>
<td>Cognitive development: questions to be answered in the nineties</td>
<td>211</td>
</tr>
<tr>
<td>SY052</td>
<td>Médiation sociale dans l'acquisition de la connaissance</td>
<td>212</td>
</tr>
<tr>
<td><strong>Thematic sessions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TH030</td>
<td>Communication development</td>
<td>213</td>
</tr>
<tr>
<td>TH031</td>
<td>Gerontopsychology</td>
<td>215</td>
</tr>
<tr>
<td>TH032</td>
<td>Methods and domains in cognitive developmental research</td>
<td>217</td>
</tr>
<tr>
<td>TH033</td>
<td>Adolescence: life perspectives, identity development and coping skills</td>
<td>218</td>
</tr>
<tr>
<td>TH034</td>
<td>Learning and cognition in early childhood</td>
<td>220</td>
</tr>
<tr>
<td>TH035</td>
<td>Sexual abuse and social risk factors</td>
<td>221</td>
</tr>
<tr>
<td>TH036</td>
<td>Postnatal development and early interaction</td>
<td>222</td>
</tr>
<tr>
<td>TH037</td>
<td>Dysfunctional families, parenting styles, and psycho-social risk factors</td>
<td>224</td>
</tr>
<tr>
<td>TH038</td>
<td>Development of social cognition, self-regulation, and social skills</td>
<td>226</td>
</tr>
<tr>
<td>TH039</td>
<td>Aspects of normal and delayed motor development</td>
<td>227</td>
</tr>
<tr>
<td>TH040</td>
<td>Youth and child development in Chinese societies</td>
<td>229</td>
</tr>
<tr>
<td><strong>Interactive sessions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN041</td>
<td>Cognitive development in children</td>
<td>231</td>
</tr>
<tr>
<td>IN042</td>
<td>Abilities, learning and knowledge in children</td>
<td>234</td>
</tr>
<tr>
<td>IN043</td>
<td>Development of knowledge, discourse, rules and strategies</td>
<td>237</td>
</tr>
<tr>
<td>IN044</td>
<td>Social development in children and adolescents</td>
<td>239</td>
</tr>
<tr>
<td>IN045</td>
<td>Emotional development and testing techniques in adolescence and young adults</td>
<td>241</td>
</tr>
<tr>
<td>IN046</td>
<td>Infancy research</td>
<td>243</td>
</tr>
<tr>
<td>IN047</td>
<td>Sex roles and gender identity</td>
<td>246</td>
</tr>
<tr>
<td>IN048</td>
<td>Adulthood and middle-age development</td>
<td>248</td>
</tr>
<tr>
<td>IN049</td>
<td>Cultural and stress factors in parenting and child development</td>
<td>250</td>
</tr>
<tr>
<td>IN050</td>
<td>Interaction, and communication in children</td>
<td>253</td>
</tr>
<tr>
<td>IN051</td>
<td>Development of play in childhood</td>
<td>254</td>
</tr>
<tr>
<td>IN052</td>
<td>Life-span and old-age development</td>
<td>256</td>
</tr>
<tr>
<td>IN053</td>
<td>Developmental aspects in special children and clinical groups</td>
<td>258</td>
</tr>
</tbody>
</table>

### 9. Social Psychology

<table>
<thead>
<tr>
<th>Symposium</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SY053</td>
<td>Motivational issues in stereotyping and prejudice</td>
<td>261</td>
</tr>
<tr>
<td>SY054</td>
<td>Person perception</td>
<td>262</td>
</tr>
<tr>
<td>SY055</td>
<td>Religion as a dependent variable</td>
<td>263</td>
</tr>
<tr>
<td>SY056</td>
<td>Aggression and cooperation</td>
<td>265</td>
</tr>
<tr>
<td>SY057</td>
<td>Intra- and inter-group relations</td>
<td>266</td>
</tr>
</tbody>
</table>
10. INDIVIDUAL DIFFERENCES AND PERSONALITY

Symposia

SY062 Human behavior genetics 327
SY063 Culture and the self 327
SY064 Traits as cognitive categories 329
SY065 Personality language 329
SY066 Advances in personality research: alternative paradigms 330
SY067 Individual differences in intelligence 331
11. PSYCHOMETRICS AND MATHEMATICAL PSYCHOLOGY

Symposia 370
SY070 The geometrical representation of psychological data 370
SY071 Models of item response theory and their applications 371
SY072 Scaling methods 372
SY073 Latency mechanisms 373

Thematic sessions 374
TH064 Computerised research methods for psychologists 374
TH065 Recent work with the progressive matrices 376
TH066 Methodological issues in psychological research 378

Interactive sessions 379
IN076 Research methods in psychology 379
IN077 Test construction and validation 383
IN078 Psychometric models and methods 385

12. NEUROPSYCHOLOGY

Symposia 388
SY074 Neuropsychology of language 388
SY075 Neuropsychological basis of sensory handicap 388
13. PHYSIOLOGICAL PSYCHOLOGY

**Symposia** 403
SY077 Brain mechanisms of learning and memory 403
SY078 Sleep-wake states and cognition 404
SY079 Neural base of cognitive processing 405
SY081 Symposium on intracerebral transplants in behavioural expression 407
SY082 Visceral perception 408
SY083 Psychophysiology of hypnosis 409

**Thematic sessions** 410
TH070 Cognitive psychophysiology 410
TH071 Behavioural neurophysiology and neuroscience 411

**Interactive sessions** 413
IN083 Event related potentials and cognitive psychophysiology 413
IN084 Behavioural neurophysiology and neuroscience 416
IN085 Emotions and clinical issues in psychophysiology 419

14. ETHOLOGY AND ANIMAL BEHAVIOUR

**Symposia** 422
SY084 Comparative analysis of learning 422
SY085 Animal Cognition 423
SY086 Comparative studies of social behaviour: mind-reading in development and evolution 424
SY087 Comparative psychology: retrospective/prospective 426

**Thematic sessions** 427
TH072 Comparative analysis of primate cognition 427
TH073 The chicken as a model for comparative psychology 428
TH074 Comparative psychology: activity theory 429
TH075 Social ecology of nonhuman primates 431

**Interactive sessions** 433
TH086 Spatial and temporal organisation in animals 433
TH087 Response selection and topography in animals 434
TH088 Food selection and social behaviour in animals 436
15. PSYCHOPATHOLOGY AND CLINICAL PSYCHOLOGY

**Symposia 439**
SY088 Psychoanalysis and cognitive psychology 439
SY089 Stress in children 440
SY091 Pain: assessment and treatment 441
SY092 Anxiety disorders: advances in basic research and treatment 442
SY093 Nonverbal communication and severe psychopathology 443
SY094 Antisocial and delinquent behavior 445
SY095 The influence of eastern thought and practice on western clinical psychology and self development 446
SY096 Hypnosis and suggestion in clinical and forensic application 447

**Thematic sessions 448**
TH076 Depression and suicide 448
TH077 Psychosomatic problems and PTSD 450
TH078 Research in clinical psychology and psychotherapy 452
TH079 Children-marriage-families: research and therapy 453
TH080 Psychoanalysis: projective methods 455
TH081 Expressed emotion 456
TH082 Sexual violence 457

**Interactive sessions 458**
IN089 Children 458
IN090 Schizophrenia - depression - suicide 462
IN091 Anxiety disorders - sexual problems - substance abuse 467
IN092 Therapy and clinical psychology 472

16. ORGANISATIONAL PSYCHOLOGY

**Symposia 480**
SY097 Innovation culture and organisational effectiveness 480
SY098 Integrating technological and cultural approaches in building organisations 481
SY099 Stability and change in the meaning of working for four national labor forces (Belgium, Germany, Japan and the USA) 483
SY101 Selection theory 484

**Thematic sessions 484**
TH083 Managerial women 484
TH084 Evaluation of personnel management tools 485
TH085 Attitudes towards work 487
TH086 Ergonomics 489
TH087 Work relocation and impact on the family 490
TH088 Assessment of career concerns in students and adults 492
TH089 Motivated competence model of leadership 494
Interactive sessions 495
IN093 Psychological well-being in work situations 495
IN094 Health, security, safety in work and non-work 499
IN095 Man-machine interaction 500
IN096 Methods of recruitment, selection, assessment, employee
development, consumer behaviour research 1 502
IN097 Methods of recruitment, selection, assessment, employee
development 2 504
IN098 Organisational culture 507
IN099 Person–environment relationships 1 510
IN100 Person–environment relationships 2 512
IN101 Individual–group effectiveness 514

17. HISTORY OF PSYCHOLOGY—EPISTEMOLOGY

Symposia 517
SY102 Significant interactions between theoretical and
applied psychology 517
SY103 The future of behaviorism 518
SY104 Vygotsky’s past and current influences 519
SY105 The perception of intentionality 520
SY106 Psychology of science 522
SY107 Early Belgian contributions to psychology 522
SY108 “The two scientific disciplines of psychology” revisited):
progress at the interface 523
SY109 The roots of scientific psychology in Europe 525
Thematic sessions 525
TH090 Philosophy of science and psychology 525
TH091 Epistemology and theoretical psychology 527
TH092 Theoretical and historical issues 529
Interactive sessions 530
IN102 Social and national organisation of psychology 530
IN103 Eponymic themes and theoretical orientations 533

18. CROSS-CULTURAL STUDIES

Symposia 538
SY110 Conceptualizations of “culture” for psychology 538
SY111 Antecedents and consequences of national value priorities:
cross-cultural perspectives 539
Thematic sessions 541
TH093 Cross-cultural aspects of legal psychology 541
TH093 Ethnic minorities and professional psychology 542
TH095 Cross-cultural research to psychology 544
TH096 Clinical psychology and psychotherapy 545
TH097 Cross-cultural studies in educational and developmental psychology 547

Interactive sessions 548
IN104 Organisational psychology in cross-cultural perspective 548
IN105 Cross-cultural approach to health psychology 550
IN106 Acculturation and adjustment process 552
IN107 Cross-cultural aspects of cognitive and perceptual processes 553
IN108 Cultural identity and national stereotypes 556
IN109 Values and social interactions in different cultures 559
IN110 Children's and adolescents' attitudes and psychological concepts 562

19. EDUCATIONAL PSYCHOLOGY

Symposia 565
SY112 Acquisition of literacy 565
SY113 Construction of mental models in complex computer-based learning systems 566
SY114 Motivation and emotion in education 567
SY115 Cognitive development and education: overview 568

Thematic sessions 569
TH098 Advances in educational testing for selection 569
TH099 University motivation and learning 571
TH100 Qualitative studies on experience and understanding 572
TH101 Overall development during preschool 574
TH102 Learning at secondary and tertiary school levels 576
TH103 Learning processes 578
TH104 On the intersections of education and psychology 579

Interactive sessions 581
IN111 Learning school subjects 581
IN112 Learning (globally) in preschool, primary school, secondary education, and higher education 584
IN113 The teacher in the scope of educational psychology 591
IN114 The handicapped learner 592
IN115 Learning processes 594

20. ENVIRONMENTAL PSYCHOLOGY–HEALTH PSYCHOLOGY

Symposia 598
SY116 Health psychology at the worksite 598
SY117 Psychological aspects of HIV-infection 599
SY118 Social support and health 601
SY119 Learning and drugs 602
SY120 Methodological contributions of neurobehavioral analysis to toxicology 603
SY121  Cognitive ergonomics today  604
SY122  Sport Psychology: new directions  605

Thematic sessions  606

TH105  Stress, strain, and adaptive responses  606
TH106  The individual in the social context  607
TH107  Safety and reliability of socio-technical systems  609
TH108  Effects of trauma and disaster  610
TH109  The person in his built environment  612
TH110  Stress and physiology  614
TH111  Coping with medical illness  616
TH112  Preventive health behaviour  617
TH113  Roaduser behaviour  619

Interactive sessions  620
IN116  Support systems and health  620
IN117  Conceptions of health  624
IN118  Prevention behaviour change  626
IN119  The person in his environment  629
IN120  Stress, coping and health  633
IN121  Patient processing of medical information  637
IN122  Coping with illness  640
IN123  Modulating effects on health and well-being  642

INTERNATIONAL UNION OF PSYCHOLOGICAL SCIENCE

IUPsyS00-1  Open forum with Psychology journal editors  646
IUPsyS00-2  Roundtable of Psychology journal editors  646
IUPsyS01  Psychological research in developing countries: Progress, problems and prospects  646
IUPsyS02  Human cognition of and response to global environmental change  647
IUPsyS03  648
IUPsyS04  Joint scientific communication and joint cognitive activity in new telecommunications media  649
IUPsyS05  Development of psychology as a science and as a profession  652
IUPsyS06  Cognitive processing  652
IUPsyS07  Global crises as macro-social stress: individual and social coping strategies  654
IUPsyS08  Community programs for young children and their families in developing countries  655
IUPsyS09  Psychological acculturation: the generalizability of theories and findings  656

Author Index  658
Report of the IUPsyS Committee on Communication and Publications
Wayne H. Holtzman
University of Austin, Austin, Texas, USA

The Standing Committee of the IUPsyS has responsibility for various publications officially sponsored by the International Union as part of its objective to promote the exchange of scientific information and international developments in psychology. In addition to the International Journal of Psychology, which has been published since 1966, the Union has supported various editions of the International Directory of Psychologists, a specialized trilingual lexicon of standardized psychological terms and concepts in French, English and German (Trilingual Psychological Dictionary, Huber 1975); and occasional books, monographs, or newsletters growing out of projects under IUPsyS sponsorship. Recent activities have focused upon four major publications: a Chinese Encyclopedia of Psychology; a fifth edition of the International Directory, a book growing out of an international survey of research in psychology; and an enlarged version of the International Journal of Psychology.

The Concise Encyclopedia of Psychology, edited by Q.C. Jing, was published last year by Human Educational Publishers, Changra, China as a major effort to acquaint Chinese-speaking psychologists with the standard psychological terms, concepts, and theories of psychology prevalent in the world. Containing 876 pages, the Encyclopedia also has brief biographies of several hundred internationally well-known psychologists selected by the editorial board of 11 Chinese psychologists.

The forthcoming International Directory, being prepared under the leadership of Géry d’Ydewalle, will feature major research organizations and graduate training departments within universities that specialize in various areas of scientific psychology. At the present stage, hundreds of questionnaires were sent to major departments of psychology throughout the world; the publication of the directory is expected by the end of 1992.

Edited by Mark Rosenzweig, International Psychological Sciences: Progress, Problems, and Prospects is the latest book to be published under the auspices of IUPsyS. The book contains an introductory chapter defining the field, and then a chapter on the international survey conducted by Rosenzweig for IUPsyS on human and financial resources for psychological research, and the status and recognition of psychological science. The book also includes reviews of international research in seven areas of psychology by authors from six countries: Human learning and memory: A cognitive perspective (Lars-Göran Nilsson, Sweden); Research in child development, parenting, and the family in cross-cultural perspective (Cigdem Kagitcibasi, Turkey); Visual...
SY102.6
Theoretical and applied psychology: A Latin American perspective. Ardila, R. National University of Colombia, Bogota, Colombia. The relationships between basic and applied psychology are explored in the context of Latin American culture. It is indicated that the needs of developing countries influence the choice of problems, the methodological strategies, and the applications of the results. A historical frame of reference is the best alternative in order to understand the relationships that exist between theory, research, and applications of psychology.

SY102.7
French psychopathology and psychotherapy at the end of the XIXth century. Plas, R. Université René Descartes, Paris, France. Between 1875 and 1914, psychopathology was a major field in French psychology, and its applications to the treatment of neuroses were soon grouped under the name of "psychotherapy". We will relate theories in French psychopathology to the different psychotherapeutic practices at that time.

SY103
The future of behaviorism. Staddon, J.E.R. Duke University, USA.

SY103.1
The future of behaviorism in the field of learning. Schorr, A. Katholische Universität Eichstätt, Germany. Traditionally it is in the field of learning that behaviorism has its strongest and most widespread application. But who are the behaviorists today? Clearly, first and foremost the members of the American Association for Behavior Analysis must be called (radical) behaviorists today. Another well-known development out of behaviorist theory must surely be Albert Bandura's social-cognitive theory of learning. The basic limitations and advantages of both approaches are discussed and proposals for future research in the field of learning are presented in this paper.

SY103.2
Varieties of behaviorism. Williams, B.A. University of California, San Diego, USA. Behaviorism was never a monolithic enterprise with clear defining attributes. I distinguish four important aspects. The first is the skeptical attitude towards theoretical constructs associated with the Skinnerian, but not the Hullian, Tolmanian or Spencean branches. The second is the Hullian commitment to associationism as a reductionistic formula for explaining complex phenomena. The third is the use of reinforcement as a substitute for intentional explanations. Fourth is the reduction of conscious experience to behavioral events. I argue that the first aspect is clearly passé, while the second is enjoying a strong revival. The third tenet is under attack from recent research on animal learning, but its status remains uncertain. The fourth tenet has been largely ignored within psychology, but has been of great interest to philosophers. Behaviorism continues as a distinct part of psychology, but many of its original tenets have been absorbed by antagonistic approaches.

SY103.3
From conditioning to consciousness: the challenge of behaviourism. Lowe, F. University College of North Wales, Bangor, UK. The main focus of behaviourism throughout much of this century has been the study of observable behavior. Thus, despite Skinner's strictures, most basic research in the field has eschewed consideration of 'private' events. Instead, the notion has prevailed that in studying the behaviour of sub-human animal species we study all the significant phenomena of psychology. As a consequence much behavioural research has shied away from the complexities of human language and consciousness. In recent years, however, there have been encouraging signs that behaviourists have at last begun to face the challenge of dealing with the crucially important features of human psychology.

SY103.4
The future of behaviorism: an insider's perspective. Machado, A. Duke University, USA. Behaviorists argue that most animal behavior is determined by the interplay of two factors: the current environment and the animal's history of reinforcement. However, these two factors have not been associated with similar kinds of research. The majority of empirical studies have focussed on the behavioral effects of present contingencies of reinforcement whereas most theoretical studies, dealing, for example, with generalizations from animal to human behavior, or with the interpretation of complex behavior, have stressed the role of the history of reinforcement. The lack of empirical studies about the role of the animal's history contradicts the theoretical weight assigned to this factor. I argue two points: (a) This contradiction stems...
from the behaviorist's rejection of the concept of internal state. By (erroneously) assuming that an internal state is either physiological - in which case its study is outside the domain of behavior theory - or mental - in which case it is pure metaphysics - behaviorists have impoverished their own conceptual and theoretical and arsenal and, consequently, they have strongly restricted their field of inquiry. (b) Internal states, their structure and dynamics, can be conceived as formal mechanisms that encapsulate the animal's history and modulate the effects of present environments. When (and if) this viewpoint is accepted, behaviorism will finally emerge from its current eclipse.

**SY103.5**  
Behaviorism: Edsel, or car of the future?  
*Staddon, J.E.R. Duke University, USA.*  
Those behaviorists who will admit to the reality of mental events are surely going through mental anguish these days. Behaviorist ideas, unrecognized and unacknowledged, permeate much of psychology. Behaviorist experimentation continues to be some of the most rigorous and exciting in psychology. And behaviorist faith in associationism has received its most resounding vindication in the recent successes of neural network theory. Yet cognitivists can rarely clear their throats without a bout of behaviorist bashing, even as they respectfully ponder PDP models. Fewer and fewer psychologists, increasingly remote from biology, animal studies and natural science in general, can appreciate behavioristic experiments. And most PDPers have never heard of behaviorism and none acknowledge any allegiance. Even those contemporary behaviorists whose work is most associationistic show little interest in these new developments. To paraphrase Shakespeare: Some movements are born great, some achieve greatness, but behaviorism thrusts greatness from it. To what can we attribute these self-destructive characteristics? Our symposiasts consider various possibilities: Skinnerian hostility to theory; reluctance to deal with human behavior as separate from animal behavior; behaviorists' resistance to an idea of "internal state" separate both from physiology and mentalism; and others. Should behaviorism shed its useless baggage and take its place as the centerpiece of contemporary experimental psychology - or are we perhaps ready to move beyond "isms" of any variety?

**SY104**  
**Vygotsky's past and current influences.**  
*Bronckart, J.P. Université de Geneve, Suisse.*  
L'oeuvre de Vygotsky constitue l'une des sources de la théorie de l'activité qu'ont développée ultérieurement A.N. Léontiev et A.R. Luria. Les écrits de ces auteurs présentant un caractère essentiellement programmatique, le premier objectif de ce symposium est d'examiner les propositions nouvelles qui permettraient de formuler, dans le champ de la psychologie, une théorie de l'action humaine, articulée à son contexte historique et socio-culturel. Deux thèmes plus précis seront également abordés. Le développement du langage comme construction de formes d'action sémiotique: - analyse de la structure du langage égocentrique (dialogique), ainsi que des modifications que subit cette structure lors du développement du langage intérieur (monologique); - analyse des effets de ces divers modes d'action sémiotique sur la structure de l'action humaine en général. L'analyse des processus qui s'élaborent dans la zone proximale de développement, et du rôle que jouent dans ces processus, les différentes formes d'interaction sociale d'une part, les différentes formes de médiation verbale d'autre part.

**SY104.1**  
**Vygotsky and action theory: an unhappy marriage?**  
*Van der Veer, R. University of Leiden, The Netherlands.*  
Researchers both within and outside the Soviet Union have debated the question whether and to what extent Vygotsky can be considered an action theorist. So far the debate has focussed upon Vygotsky's relationship with one version of action theory: Leont'ev's activity theory. It is the purpose of the present paper to broaden the discussion somewhat by looking at other possible sources of an action theory. It will be argued that among Vygotsky's and Leont'ev's contemporaries several scholars propounded versions of an action theory - e.g. Basov, Bergson, Janet, Piaget, Wallon - and that Vygotsky and Leont'ev used these contributions to a different extent.

**SY104.2**  
**From Uzbekistan to Zululand: reflections on the cultural and social foundations of cognition.**  
*Gilbert, A.J. Rhodes University, South Africa.*  
In 1932 Luria, in collaboration with Vygotsky, visited Uzbekistan to investigate the effect of collectivism and