VIIth International Conference on Event Perception and Action

Proceedings

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Organized by

John B. Pittenger
University of Arkansas at Little Rock

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POSTERS 121
Monday - August 9

8:00-12:00 Registration

8:45-9:30 Opening

9:30-11:30 Perceptual Learning in Infancy
Organizers: Catherine T. Best and Eleanor J. Gibson

9:30 Infant Speech Perception as an Instance of Perceptual Learning: Perceptual Experience and the “Magnet Effect”
Patricia K. Kuhl

9:55 Selectivity in Nonnative Speech Discrimination
Janet F. Werker

10:20 Amodal Relations and Intermodal Learning in Infancy
Lorraine F. Bahrick

10:45 Arm Movements in the Neonate: Establishing a Frame of Reference for Reaching
Audrey L. H. van der Meer

11:10 Commentary
Catherine T. Best

11:20 Discussion

11:30-12:30 Lunch

12:30-13:30 Poster Session

Important: While the poster room will be open all day, please note that there are two periods each day when reading the posters does not overlap with the symposia. First, there will be a two-hour interval between the morning and afternoon sessions on each day (e.g., 11:30-13:30 on Monday, 12:00-14:00 on Tuesday, etc.). Poster authors are asked to be available at their poster station to answer questions during the last hour of this interval (e.g., 12:30-13:30 on Monday, 13:00-14:00 on Tuesday, etc.). Second, the poster room will be open for one hour after the end of the last symposium of the day.

13:30-15:30 Dynamics of Movement Disorders
Organizers: R. Wagenaar, R. van Emmerik, P. Haggard, and D. Mestre.

13:30 Introduction
P. Haggard

13:35 Perception-Action Coupling in Parkinson’s Disease
14:00  The Structure of Postural Dynamics in Tardive Dyskinesia  

14:25  Self-Optimization and Dynamical Systems Analysis of Movement Disorders  
      K. G. Holt and S. F. Jeng.

14:50  Dynamic Models of Human Walking in Health and Disease  
      R. C. Wagenaar and R. E. A. van Emmerik

15:15  Discussion

15:30-16:00  Coffee Break

16:00-18:00  Event Recognition: Current Perspectives  
            Organizers: Patrick A. Cabe and Steven B. Flynn

16:00  On the History of the Event Perception Concept and its Applications  
      Gunnar Johansson

16:30  The Problem of Visual Event Recognition  
      Geoffrey P. Bingham

      Heiko Hecht

17:10  Physical vs Animated Events in Collision Dynamics Perception  
      Steven B. Flynn

17:30  Discussion  
      Claudia Carello

17:45  Questions and Answers

Note: Poster Room Open until 19:00

19:30-22:00  Evening Discussion Group: Ecological Psychology and the Arts  
            Conveners: Nathan Nobler and William Mace

Discussions of research and matters of mutual interest to all people interested in ecological psychology and aesthetics. Among the formal presentations will be these from the Laboratory for Form Theory, Delft University of Technology, The Netherlands:

- Expressing Tastes in Packages  
  C. J. Overbeeke and G. J. F. Smets

- Color Research with a Focus on Perceiver’s Actions  
  J. P. Claessen, G. J. F. Smets, and C. J. Overbeeke
Tuesday - August 10

8:30-10:00  **Ecological Psychology and Human Factors**  
*Organizers: Leonard S. Mark, Gerda Smets, Kees Overbeeke, and Oded Flascher*

8:30  Symposium Introduction: The Problem of Presence in Virtual Environments  
*Symposium Organizers*

8:35  Virtual Environments and the Ecological Theory of Perception  
*Lawrence J. Hettinger and Michael Haas*

8:55  Modelling Objects in a Virtual Environment: About Direct Manipulation and Affordances  
*Gerda J. Smets, Kees J. Overbeeke and Pieter Jan Stappers*

9:15  The Application of Ecological Human Factors Principles to Virtual Environment Interface Design  
*J. K. Caïrd and P. A. Hancock*

9:35  Extending the Affordances of an Audio-Visual Network  
*Bill Gaver*

9:55  General Discussion

10:00-10:30  **Coffee Break**

10:30-12:00  **Velocity Control in Action**  
*Organizers: R. Bootsma and T. Stoffregen*

10:30  Controlling Hand Velocity on Hitting  
*Reinoud Bootsma and Luis Sardinha*

10:40  How do Somersaulters Control their Angular Velocity?  
*Benoît G. Bardy and Brice Isableu*

10:50  Tau Control of Velocity of Approach in Looking and Hitting  
*David N. Lee*

11:10  Separate Control of Velocity and Position  
*Jeroen Sneets and Eli Brenner*

11:30  Controlling Interceptive Actions in Cerebral Palsy  
*Ruud van der Weel*

11:50  Discussion

12:00-12:45  **Lunch**

12:45-13:30  **Poster Session**  
See description of Monday Poster Session.

13:30-15:00  **Ecological Psychology and the New Artificial Intelligence: Seeking Common Ground**  
*Organizers: Robert E. Shaw and Judith A. Effken*
13:30  Adaptive Behavior in Natural and Artificial Agents  
_Randall D. Beer_

13:50  Building Autonomous Agents as a Research Strategy for Understanding Perception and Action  
_Paul F. M. J. Verschure_

14:10  Challenges Confronting Artificial Models of Ecological Intelligence  
_Peter N. Kugler_

14:30  Discussant  
_David Kirsh_

14:50  Questions and General Discussion

15:00-15:30  Coffee Break

15:30-17:00  **Ecological Perspectives on Language**  
_Organizers: Carol A. Fowler and Jeffrey Kinsella-Shaw_

15:30  Natural Symbol Systems and Ecological Linguistics  
_Dennis Waters_

15:48  Biological Foundations for an Ecological Ontology of Sign and Symbol Systems  
_Jeffrey Kinsella-Shaw and Robert E. Shaw_

16:06  An Ecological Grounding for Sign and Symbol Functions  
_Robert E. Shaw and Jeffery Kinsella-Shaw_

16:24  Transient and Enduring Evidence of the Origin of Language Forms in Language Use  
_Carol A. Fowler_

16:34  Telescoping of Language Forms in Spontaneous Speech  
_Elena T. Levy_

16:52  Discussion

**Note:** Poster Room Open until 18:00

17:00-19:00  **Evening Discussion Group: Human Factors and Ecological Psychology**  
_Conveners: Len Mark, Gerda Smets, Kees Overbeeke, John Flach, and Oded Flascher._

19:30-21:30  **Workshop on the Study of Language from the Ecological Perspective**  
_Conveners: Carol Fowler and Jeff Kinsella-Shaw_

One purpose of the workshop is to define the scope of a theory of language from the ecological perspective. Some discussion will focus on the paradox of an ecological theory of symbol use. A second purpose is to work out the topics for research and the research methodologies that an ecological approach to language should include.
WEDNESDAY - AUGUST 11

8:30-9:00  ISEP Meeting

9:00-10:30  Apprehending Dynamic Events: Invariants versus Cue-Heuristics
Organizer: Sverker Runeson
Moderator: Geoffrey P. Bingham

9:00  Introduction
Geoffrey P. Bingham

9:10  Understanding Dynamics Based on Cue-Heuristics
Heiko Hecht

9:30  The Reality and Perceptual Relevance of Informative Invariants:
Ontological Aspects and Empirical Results
Sverker Runeson

9:50  Questions and General Discussion

10:30-11:00  Coffee Break

11:00-13:00  An Ecological Approach to Development
Organizer: Patricia Zukow-Goldring

11:00  Responses to Invisible Affordances: Intentionality in Infancy
Nancy Rader

11:20  A Realist Theory of Language Development
Cathy Dent-Read

11:40  When Gestures Speak Louder than Words: Educating Attention to the
Relation Between Words and World
Patricia Zukow-Goldring

12:00  Development of Language and Social Behavior in Autism
Katherine Loveland

12:20  Applying Methods from Perceptual Development to Examining
Emotional Development in Children with Autism
Arlene Walker-Andrews

12:40  Discussant
Eleanor J. Gibson

13:00-14:00  Lunch

14:00-15:00  Poster Session
See description of Monday Poster Session.
15:00-17:00  Intersubjectivity

15:00  Introduction
James M. M. Good and S. Stavros Valenti

15:10  The Ecological Approach to Language
Edward S. Reed

15:35  Affective Affordances: The Emergence and Regulation of Shared Affect
G. P. Ginsburg and Melanie Harrington

16:00  The perception of intentionality as a basis for intersubjectivity
Dankert Vedeler

16:20  Constraints on Between-Person Coordination
R. C. Schmidt

16:40  Discussion

Note:  Poster Room Open until 18:00

17:30-19:00  Evening Discussion Group: Development and Intersubjectivity.
Conveners:  Jim Good, Stavros Valenti, and Patricia Zukow

20:30-22:00  Evening Discussion Group: Tau and Time-to-Contact
Convener: Claire Michaels

New discoveries (conceptual and empirical) may be presented during the first half hour. (Bring your data!) A discussion of these and other tau-related posters and presentations will follow.
Thursday - August 12

8:30-10:00  **Illusion and Reality**
*Organizer: Glenn E. Meyer*

8:30  Perceiving Complete Objects in the Face of Occlusion
*James T. Enns and David I. Shore*

8:46  Illusions, Appearance and Reality
*John M. Kennedy*

9:02  What is Contained within an "Image"? Evidence from Massive Failures to Make Discoveries from Imagery
*Daniel Reisberg*

9:18  Illusions of Light, Shadow and Contrast
*Glenn E. Meyer*

9:34  Subjective Contours and Visual-Geometric Illusions: Do They Share Common Mechanisms?
*Stanley Coren and Renata Harland*

9:50  Discussion

10:00-10:30  Coffee Break

10:30-12:00  **Navigation and Environmental Cognition: Ecological Considerations**
*Organizer: Harry Heft*

10:30  Navigating with the Aid of Topographic Maps
*Herbert L. Pick, Jr. and William B. Thompson*

10:45  Path Integration: A Neglected Form of Human Navigation
*Jack M. Loomis, Roberta L. Klatzky, and Reginald G. Golledge*

11:00  The Calibration of Walking without Vision, Models of Perceptual-Motor Organization, and Knowledge of Spatial Layout.
*John J. Rieser*

11:15  The Representation of a Circular Route: Identification of Landmarks and Configuration
*Edward H. Cornell, C. Donald Heath, and Tammy L. Dukewich*

11:30  Way-Finding as Event Perception: The Structure of Route Information
*Harry Heft and Marion H. Kent*

11:45  Discussion

12:00-13:00  Lunch

13:00-14:00  **Poster Session**
See description of Monday Poster Session.
Program

14:00-15:30  
**Dynamical Themes in Perception and Action**

*Organizers: J. A. S. Kelso and M. T. Turvey*

14:00  
A Physical Foundation for Gibson's Approach to Perception and Action

*A. S. Iberall*

14:40  
Dynamical Analyses of Perception and Interlimb Coordination: An Overview of Research

*M. T. Turvey*

15:20  
Discussion

15:30-16:00  
Coffee Break

16:00-17:30  
**Ecological Acoustics**

*Organizers: Rainer Guski, Wolf-D. Heine, and Hollis Fitch*

16:00  
Introduction

*Rainer Guski and Wolf Heine*

16:05  
Issues in Auditory Looming

*Larry Rosenblum*

16:25  
Getting Around by Means of Sound

*David Lee*

16:45  
Speech Perception is Not Special: A Comparison of Speech to Nonspeech

*Carol Fowler*

17:05  
Acoustic Texture in Distance Perception

*Rainer Hoeger*

17:25  
General Discussion

**Note:** *Poster Room Open until 18:30*

**Time TBA**  
**Evening Discussion Group: Affordances and Human-Environment Interfaces**

*Conveners: Gary Riccio and Vernon McDonald*
Friday - August 13

8:00-10:00 Surface Perception
Organizers: Francene Reichel and J. Farley Norman

8:00 The Perception of Contradictory Motion and Binocular Disparity Fields
J. Farley Norman, James T. Todd, James S. Tittle, and Victor J. Perotti

8:25 Lightness of Curved Surfaces
Ennio Mingolla and Larry Arend

8:45 Recovering 3-D Surfaces from 2-D Velocity Gradients
Myron L. Braunstein, Jeffrey C. Liter, Asad Saidpour, and James S. Tittle

9:10 From Deforming Images to Perceived Surfaces
Joseph S. Lappin, Ulf B. Ahlstrom, and Warren D. Craft

9:30 Reconceptualizing Accretion/Deletion of Texture
Albert Yonas, Maya Sen, and David Knill

9:50 Discussion

10:00-10:30 Coffee Break

10:30-12:00 Affordances and Task Constraints in Intentional Systems
Organizers: Peter Beek, Karl Newell and Gary Riccio

10:30 On Affordances and Tasks
Karl Newell

10:45 Affordances for Multicriterion Control
Vernon McDonald

11:00 Questions and Discussion

11:15 Controlling Nested Subsystems in Cascade Juggling on the Basis of Optical Information
Tony Santvoord and Peter Beek

11:30 Multimodal Perception and Multicriterion Control of Nested Systems
Gary Riccio

11:45 Discussion

12:00-13:00 Lunch

13:00-14:00 Poster Session
See description of Monday Poster Session
14:00-15:30  Visual Control of Locomotion  
Organizers: Dean Owen and Walter Johnson

14:00  Isolating Optical Invariants in Performance  
Dean Owen

14:10  An Integration of the Ecological and Engineering Approaches to Control of Locomotion  
Walter Johnson

14:20  Examining the Mapping between Event Kinematics and Potential Optical Control Variables  
Mary Kaiser

14:30  The Analysis of Optic Flow for the Recovery of Object and Observer Motion  
George Andersen

14:40  A Constraint-Based Global Perspective on Information for Control  
John Flach

14:50  Optical Flow and Control  
William Warren

15:00  Panel Discussion.

15:20  General discussion.

15:30-16:00  Coffee Break

16:00-17:30  Lessons from Highly Refined Perception-Action Cycles in the Arts  
Organizers: Robert E. Shaw, Nathan Knobler, William Mace and Ron Growney

16:00  Some of the Operative Factors in the Production of Drawings  
Nathan Knobler

16:23  The Intentional Dynamics of Chinese Calligraphical Art  
Robert E. Shaw

16:46  Aesthetic Judgments of Dance: The Role of Visual Information  
Jacquelyn T. Gray and Ulrich Neisser

17:09  Moving the Window on Perception-Action Cycles  
William M. Mace

17:19  Discussion

Note: Poster Room Open until 18:30

19:00  Banquet in the Museum of Anthropology