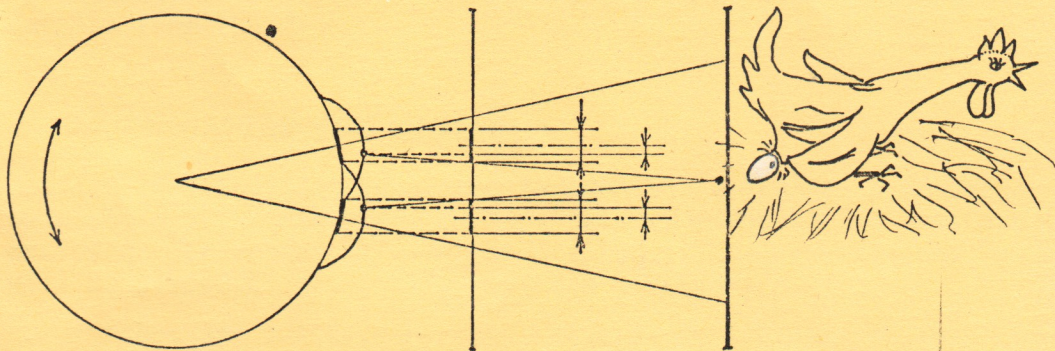


Conference of the European Group for Eye Movement Research

EYE MOVEMENTS
CURRENT RESEARCH AND METHODOLOGY

University of Bern, Switzerland, September 16 - 19, 1981



SUPPORTED BY
THE SWISS NATIONAL SCIENCE FOUNDATION
ORGANIZED BY
RUDOLF GRONER & CHRISTINE MENZ
UNIVERSITY OF BERN , PSYCHOLOGY DEPARTMENT

PROGRAM

GENERAL INFORMATION

1. AIM

This is the first meeting of an open and informal group of European scientists from various fields actively involved in eye movement research. The main purpose of the group is to promote information exchange. This is done by (1) conferences planned at regular intervals, and (2) by continuously updating a list of current research.

In a first announcement we called for papers about current research where either use is being made of eye movement registration for the exploration of substantial questions, and/or where methodological questions of some importance are taken up. Papers will be presented in English, and presentation time is expected to be 20 min with an additional 10 mins for discussion from the floor.

2. ACCOMODATION AND DINING

Hotel reservation can be placed through the *Verkehrs- & Kongressbüro Bern, Postfach 2700, CH-3001 Bern* by means of the postcard enclosed. For orders arriving before August 20, reservations will be placed at especially suitable locations.

For lunches and snacks, there are several restaurants in the immediate neighbourhood of the venue. For inexpensive meals, the Student's Cafeteria is located at Gesellschaftsstrasse 2.

3. SOCIAL EVENTS

There will be a reception of the participants and their company Wednesday evening at a place which will be announced at the conference.

For Saturday afternoon we are planning an excursion of the participants to the Bernese countryside. If wheather allows, it will include a boat trip on the Lake of Thun.

WEDNESDAY, SEPTEMBER 16, MORNING

8:30 - 10:00 Registration

10:00 - 10:15 Welcome address

Session I : Methodological issues, problems of
defining and automatic processing
eye movement parameters

Chair : Robert W. Ditchburn, Reading GB

10:15 - 10:45 A. Buizza & R. Schmid, Università
di Pavia, Italy
*Computer Analysis of Smooth pursuit
Eye Movements*

10:45 - 11:15 C. Cabiati, M. Pastormerlo, D. Zambarbi-
eri & R. Schmid, University of Pavia I
*Computer Analysis of Saccadic Eye
Movements*

11:15 - 11:45 Dieter Heller, Universität Bayreuth
GFR
*Problems of On-Line Processing of
EOG-Data in Reading*

WEDNESDAY, SEPTEMBER 16, AFTERNOON

Session I, Methodological issues (continued)

- 14:00 - 14:30 W.Schumacher, Fraunhofer-Institut
IITB, Karlsruhe GFR
*Automatic Evaluation of Eye-Move-
ments Measured by Corneal Reflex*
- 14:30 - 15:00 E.Megaw (University of Birmingham GB)
& J.Richardson (Université Paris XI)
*Uses and Abuses of the NAC Eye Mark
Recorder*
- 15:00 - 15:30 COFFEE BREAK

Session II : The functional visual field and central
versus peripheral processing

Chair : Ariane Lévy-Schoen, Université Paris V F

- 15:30 - 16:00 W.Prinz, Universität Bielefeld GFR
*Asymmetrical Control Areas in
Continuous Visual Search*
- 16:00 - 16:30 H.Widdel, Forschungsinstitut für
Anthropotechnik, Wachtberg-Werthofen
*A Method for Measuring the Visual
Lobe Area*
- 16:30 - 17:00 Z.Kapoula, Université Paris V F
*The Influence of Peripheral Prepro-
cessing on Oculomotor Programming
in a Scanning Task*

THURSDAY, SEPTEMBER 17, MORNING

Session III : Tracking, smooth eye movements and spatial localisation of the stimulus

Chair : W. Möckel, University of Oldenburg GFR

- 8:30 - 9:00 H.Fischer & D. Kunak, Swiss Federal Institute of Technology, Zürich CH
Smooth Eye Movements While Observing Horizontal and Vertical Movements
- 9:00 - 9:30 A.H.Wertheim, Institute for Perception TNO, De Soesterberg NL
Perceived Motion Is Relative to Eye Movement Characteristics
- 9:30 - 10:00 L.Mitrani & G.Dimitrov, Bulgarian Academy of Sciences, Sofia
Localisation of Brief Visual Stimuli Presented During Smooth Eye Movement
- 10:00 - 10:30 COFFEE BREAK
- 10:30 - 11:00 V.A.Barabanshikov, USSR Academy of Sciences, Moscow
The Relationships between Sensory and Motor Components of the Human Eye Movement System

Session IV : Looking at static and dynamic displays

Chair : J.W. Findlay, University of Durham GB

- 11:00 - 11:30 A.G.Gale, Queen's Med. Centre, Nottingham GB
Eye Movement Patterns in Viewing Ambiguous Figures
- 11:30 - 12:00 A.G.Gale & B.S.Worthington, Nottingham
Scanning Strategies in Radiology

THURSDAY, SEPTEMBER 17, AFTERNOON

Session IV continued

- 14:00 - 14:30 D.F.Fisher, R.Karsh, F.Breitenbach & B.D.Barnett (Aberdeen PG Md, USA)
Eye Movements and Picture Recognition: Contribution or Embellishment
- 14:30 - 15:00 A.S.Cohen & R.Hirsig, Swiss Federal Institute of Technology, Zürich CH
Driver's Eye Movement Behavior Under Open Road Conditions and Negotiating Curves
- 15:00 - 15:30 J.L.Kaufmann & P.Coles, Université de Genève
Effects on Eye Movement Functioning of a Oculomotor-Contingent Spatial Stimulus

15:30 - 16:00 COFFEE BREAK

Session V : Differential and psychopathological effects

Chair : G.d'Ydewalle, University of Leuven B

- 16:00 - 16:30 B.Biehl & G.Kleindienst, Universität Mannheim GFR
Eye Movements and "Repression vs. Sensitization"
- 16:30 - 17:00 O.Meienberg (Bern), W.H.Zangemeister (Hamburg), W.F.Hoyt & L.Stark (San Francisco)
Oculomotor Compensation for the Loss of One Half of the Visual Field
- 17:00 - 17:30 W.F.Bischof, H.U.Fisch, M.Groner, R.Groner & C.Menz, University of Bern CH
Analysis of Eye Movements and Other Real-Time Variables of Human Information Processing Under Small Drug Dosages

FRIDAY, SEPTEMBER 18, MORNING

Session V (psychopathological aspects) continued

- 8:30 - 9:00 S.I.Andersson, University of Lund, S
Eye Movements and Attention in Psychiatric Patients
- 9:00 - 9:30 N. Galley, Universität Köln, GFR
Eye Movements in Schizophrenics-Revisited

Session VI : Speech production and psycholinguistic factors

Chair : G.B. Flores d'Arcais, Universiteit Leiden and
Max-Planck-Institut f.Psycholing. Nijmegen

- 9:30 - 10:00 W.Huber, G.Lüer & U.Lass, RWTH Aachen GFR
Processing of Sentences in Conditions of Aphasia as assessed by Recording Eye Mvts
- 10:00 - 10:30 COFFEE BREAK
- 10:30 - 11:00 G.Klaas & P.Wittenburg, MPI Nijmegen NL
Eye View Monitoring in Speech Production Tasks
- 11:00 - 11:30 W.Krause, J.Fassl & F.Wysotzki, Akademie der Wissenschaften, Berlin DDR
Threedimensional Orderings, Text Representations and Eye Fixation
- 11:30 - 12:00 Ch.Menz & R.Groner, Universität Bern CH
The Analysis of Ocular and Vocal Variable During the Acquisition of a New Letter System

FRIDAY, SEPTEMBER 18, AFTERNOON

Session VII : Reading and text processing

Chair : F.Stoll, Universität Zürich CH

- 14:00 - 14:30 D.Heller & H.Müller, Universität
Bayreuth GFR
*On the Relationship of Saccade Size and
Fixation Duration in Reading*
- 14:30 - 15:00 A.Kennedy, University of Dundee GB
*Spatial Knowledge and Regressive
Fixations*
- 15:00 - 15:30 Peter Whalley, The Open University,
Milton Keynes GB
*Macro Level Recording of Reading
Behaviour*
- 15:30 - 16:00 COFFEE BREAK
- 16:00 - 16:30 W.L.Shebilske, University of Virginia
D.F.Fisher, Human Engineering Labora-
tories Aberdeen Proving Grounds, USA
*Eye Movements During the Reading of
Extended Discourse*
- 16:30 - 17:00 G.B.Flores d'Arcais, Leiden & Nijmegen
*Syntactic Processing and Error Recover
During Reading*
- 17:00 - 17:45 G.Th.Pavlidis, University of Manchester
GB
*The Role of Eye Movements in Reading
and Dyslexia*

SATURDAY, SEPTEMBER 19, MORNING

Session VIII : Models of the Control of Eye Movements

Chair : Robert W. Ditchburn, Reading GB

- 8:30 - 9:00 A.S.Cohen & R.Hirsig, Swiss Federal Institute of Technology Zürich CH
The Eye Movement Behavior's Basic Characteristics Described by a Deterministic Control Model
- 9:00 - 9:30 D.Bouis, Straubenhardt GFR
Hierarchical Organization of the Control of Eye Movements
- 9:30 - 10:00 D.Zambarbieri, G.Magenes & R.Schmid
University of Pavia I
A Model for Central Processing in Saccade Generation
- 10:00 - 10:30 M.Groner, University of Basel and Bern,
R.Groner, University of Bern CH
Mathematical Models of Eye Fixation Latency Distributions
- 10:30 - 11:00 COFFEE BREAK
- 11:00 - 11:45 Participants
Looking Back and Ahead

SATURDAY AFTERNOON : EXCURSION